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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Latabase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0
length: 2000000000
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1: /SIDS8/gcgdata
2: /SIDS8/gcgdata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              July 12, 2001, 08:24:10 ; Search time 45.7 Seconds (without alignments) 54.389 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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242
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS8/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1981.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                             /SIDSB/gcgdata/geneseq/geneseqp/AA1990_DAT:*
/SIDSB/gcgdata/geneseq/geneseqp/AA1990_DAT:*
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SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      412676
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No.	Score	Match	Match Length DB		ID	Description
1	242	100.0	41	20	AAY30214	Amino acids 308 to
2	235	97.1	424	21	AAY52988	Human zona pelluci
w	229	94.6	372	21	AAY67287	Human zona pelluci
	226	93.4	223	15	AAR66552	Cynomolgus Monkey
5	226	.93.4	223	20	AAY42483	Cynomolgus monkey
6	226	93.4	223	20	AAW81820	M. cynomolgus ZPC
7	226	93.4	223	21	AAY82218	Monkey zona pelluc
- 8	226	93.4	223	21	AAY52692	Cynomolgus monkey
9	226	93.4	223	21	AAY52183 ·	Monkey zona pelluc
10	226	93.4	223	21	AAY52987	Cynomolgus monkey
11	225	93.0	372	13	AAR22239	Human ZP3. Homo s

Claim 7; Fig 1; 35pp; English.

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	1:2
109	109	109	. 109	109	119	119	119	119	119	119	119	119	119	119	126	136	136	136	136	136	136	136	137	137	140	151	151	151	151	151	151	151	192
٠	45.0	5	5	45.0	9.	9.	9	9.	9.	9.	9.	9.	9.	9.	'n	٥,	6.	6.	6.	56.2	6	6	6.	ა	7.		<u>ن</u>	Ñ	٧.	2		62.4	79.3
421	421	421	421	421	421	421	421	421	421	421	421	420	258	258	424	424	424	424	424	424	424	424	424	261	426	426	426	426	426	426	426	426	424
21	21	20	20	15	21	21	21	21	20	20	15	15	15	14	11	21	21	21	21	20	20	15	15	15	15	21	21	21	21	20	20	15	15
AAY52687	AAY82213	AAW81815	AAY42478	AAR55205	AAY52973	AAY52169	AAY52678	AAY82204	AAW81806	AAY42469	AAR55196	AAR96950	AAR96951	AAR41004	AAR07058	AAY52979	AAY52175	AAY52684	AAY82210	AAW81812	AAY42475	AAR55202	AAR47198	AAR60165	AAR48068	AAY52976	AAY52172	AAY52681	AAY82207	AAW81809	AAY42472	AAR55199	AAR53498
	Bovine zona pelluc		Bovine zona pelluc	Bovine zona pelluc	Porcine zona pellu	Porcine zona pellu	Porcine oocyte zon	Porcine zona pellu	ZPC	zona	Porcine zona pellu		ö	Pig PZP-3. Sus sc	2	Feline zona pelluc		оосу	zona	ZPC F	zona	zona	zona	e 2	Can		Canine zona pelluc	Canine oocyte zona	zona	Canine ZPC protein	Canine zona pelluc	na	Marmoset ZP3. Cal

### ALIGNMENTS

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New recombinant human zona pellucida protein 3 - used to develop products for diagnostic and therapeutic use related to human fertility
                                                                                                                                                                                                                        Human; zona pellucida protein 3; hZP3; glycoprotein; human spermatozoa; acrosome reaction; fertility; sperm motility; fertilization.
                                                                                                                                                                                                                                                                                                                AAY30214 standard; peptide;
                                                          WPI; 1999-527476/44.
                                                                            Dong K, Gibbons WE,
                                                                                                                    19-FEB-1998;
                                                                                                                                                            26-AUG-1999.
                                                                                                                                                                                W09942581-A1
                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                    Amino acids 308 to 348 of human zona pellucida protein 3 (hZP3).
                                                                                                                                                                                                                                                                       01-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                              AAY30214;
                                                                                                 (EVIR-) EASTERN VIRGINIA MEDICAL SCHOOL.
                                                                                                                                       19-FEB-1999;
                                                                                                                   9805-0075079
                                                                                                                                        99WO-US03273
                                                                             Oehninger S;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                               09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents amino acids 308 to 348 of human zona pellucida protein 3 (hZP3). The protein is a glycoprotein, and can strongly bind human spermatozoa and induce an acrosome reaction in the spermatozoa. The specification describes methods for producing recombinant hZP3. The protein can provide high levels of biologically active hZP3 of consistent quality for use in clinical and research chemistry, e.g. diagnostic and therapeutic use related to human fertility. The protein retains the ability to bind spermatozoa and induce the acrosome reaction. The hZP3 can be used to treat sperm to respond more efficiently to motility and acrosome reaction regulators within the female reproductive tract and increase the rate
stimulating mammalian antibodies that recognise mammalian ZPC. Recombinant ZPC proteins are used to immunise animals to induce transient infertility or permanent female sterility, in humans or other mammals. AAZ33243 to AAZ33254, AAZ33270 to AAZ33274 and AAZ33285 encode mammalian ZP proteins given in AAY52971 to AAZ33284 from the present invention. AAZ33255 to AAZ33269 and AAZ33275 to AAZ33284 represent oligonucleotides
                                                                                                     The present invention describes recombinant zona pellucida (ZP) proteins, specifically ZPC proteins. Also described are fusion pr of zPC with any of keyhole limpet haemocyanin, muranyl dipeptide, histidine tag, beta-galactosidase or palmitic acid, capable of
                                                                                                                                                                                            Disclosure; Column 153-156; 87pp; English
                                                                                                                                                                                                                                                                                                       WPI; 2000-037080/03
                                                                                                                                                                                                                                                                                                                                          Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US5976545-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human zona pellucida ZPC protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2000 (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY52988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY52988 standard; Protein; 424 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of successful fertilization.
                                                                                                                                                                                                                                                  New recombinant mammalian zona pellucida C
                                                                                                                                                                                                                                                                                                                                                                            (ZONA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zona pellucida;
                                                                                                                                                                                                                                   emale sterility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mmunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            swfpvqgpadicqccnkgdcgtpshsrrqphvmsqwsrsvs 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41;
                                                                                                                                                                                                                                                                                                                                                                              ZONAGEN INC.
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                                                                                                                                                                                                                                                                                                                                          HSu KT,
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                                                                                                                                                                                                                                                                                                                                                                                                             93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95US-0484158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZPB; ZPC;
                                                                                                                                                                                                                                                                                                                                          Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 242; DB 20;
Pred. No. 8.6e-23;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                          JD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infertility; sterility; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunisation.
                                                                                                                                                                                                                                                  proteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                    for induction of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                            proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41

Query Match Best Local Matches 3

38; Conservative

94.68;

; Score 229; DB ; Pred. No. 2.8e 1; Mismatches

DB 21;

Length 372;

Indels

0;

Gaps

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Дb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                       This is the amino acid sequence of the human zona pellucida protein (ZP3). ZP3 takes part in the primary binding between egg and sperm, during fertilisation. ZP3 binds to receptors on the sperm. The ZP3 protein is used in the invention, which relates to an antigenic molecule, which consists of an isolated egg surface protein (e.g. ZP3) covalently linked to a glycosylated phosphatidylinositol moiety and having sperm binding activity. Antiserum comprising an antibody to an egg surface protein, can be prepared by recovering serum with the ability to bind antigen from an animal following limmnisation with an immunogenic fragment of an egg surface protein. The antigenic molecule the antiserum, and an antibody against an egg surface protein can be used in methods for modulating fertility. The antibodies can be used in vaccination against fertilisation, sterilisation, diagnostic immunoassays, passive immunotherapy and generation of antiidiotypic antibodies.
Sequence
                                                                                                                                                                                                                                                       Claim 6;
                                                                                                                                                                                                                                                                                    Antigenic molecule used in methods for modulating fertility
                                                                                                                                                                                                                                                                                                                WPI; 2000-106016/09
N-PSDB; AAZ57790.
                                                                                                                                                                                                                                                                                                                                                             Herr JC,
                                                                                                                                                                                                                                                                                                                                                                                         (UYVI-) UNIV VIRGINIA PATENT FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                       19-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09965520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sterilisation; fertility modulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zona pellucida protein; sperm receptor; antigen:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human zona pellucida protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-APR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY67287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY67287 standard; Protein; 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               308
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39; Conservative
                                                                                                                                                                                                                                                       Fig 12B; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                             Coonrod SA
 372 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0089950
                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US13858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein; 2P3; sperm
antigenic molecule;
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95.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZP3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 235; DB Pred. No. 5.9e 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ZP3) amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sperm binding factor; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 21;
.9e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fertilisation; antiserum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 424;
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RESULT

AAY42483

CD AAY4

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AC AAY4

DY 15-F

XX

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AAR66552
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                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 37; Conser
                                                                                                                                                                                                                                                                                                using mRNA isolated from a set of ovaries collected from monkeys aged 1.5 and 2 years and a second set from monkeys aged 3, 4 and 14 years of age. The libraries were screened with probes encoding porcine ZPA, ZPB and ZPC proteins. Positive clones were analysed further by Southern hybridisation using the porcine probes. Clones encoding cynomolyus monkey ZPA, ZPB and ZPC proteins were identified (see AAQ79680-Q79682). AAQ79682 is the insert from the largest partial ZPC clone which contains just over 50% of the c-terminal portion of the full-length sequence and contains an ORF of 672bp; AAR66552 is the amino acid sequence deduced from the ORF
             Cynomolgus monkey zona pellucida ZPC protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Use of zona pellucida proteins and reproducible transient infertility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cynomolgus Monkey;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cynomolgus Monkey zona pellucida ZPC protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR66552 standard; Protein;
                                       15-FEB-2000
                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                 Cynomolgus monkey cDNA libraries were constructed in lambda gt10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAQ79682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1994-183156/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Harris JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9411019-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Macaca cynomolgus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR66552;
                                                                                        AAY42483 standard; Protein; 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 12; Page 132-133; 154pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ZONA-) ZONAGEN INC.
                                                                                                                                                           107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   308 swfpvegpadicgccnkgdcgtpshsrrqphvmsqwstsas 348
                                                                                                                                                     U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
                                                                                                                                                                                                                                                                         223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSu KT,
                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93WO-US10851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              zona pellucida; ZPC; immunocontraception
                                                                                                                                                                                                                      93.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Podolski JS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223
                                                                                                                                                                                                         Pred. No. 4e-2
3; Mismatches
                                                                                                                                                                                                          ω
••
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antibodies - or permanent
                                                                                                                                                                                                      ; 4e-20; 1;
                                                                                                                                                                                                                                   DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for inducing sterility in
                                                                                                                                                                                                                                   Length 223;
                                                                                                                                                                                                            Indels
                                                                                                                                                                                                          0;
                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                          14
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Best Local
                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   protein. The invention relates to the isolation of novel nucleotide sequences encoding zona pellucida proteins from mammalian, especially porcine, lapine, canine, feline, bovine, human or cynomolgus monkey sources. The zona pellucida proteins (ZPA, ZPB, and ZPC) are used in the induction of transient or permanent infertility. At present the method is used in veterinary applications to induce transient or permanent infertility in porcine, lapine, canine, feline, bovine, and account infertility in porcine, lapine, canine, feline, bovine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                   Key
Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contraceptive; porcine; pig; zona pellucida; mammal; lapine; canine; dog; rabbit; feline; cat; bovine; cow; human; cynomolgus monkey; ZPA ZPB; ZPC; infertility; veterinary.
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents the cynomolgus monkey zona pellucida ZPC
                    US5837497-A.
                                                                                                      Macaca cynomolgus
                                                                                                                             vaccine;
                                                                                                                                       ZPC; zona pellucida;
                                                                                                                                                               M. cynomolgus ZPC protein
                                                                                                                                                                                       29-JAN-1999
                                                                                                                                                                                                             AAW81820;
                                                                                                                                                                                                                                     AAW81820 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                             and cynomolgus monkeys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 12; Column 143-146; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infertility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalian zona pellucida proteins used to induce transient or permanent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAZ22740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-633318/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5981228-A
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                                                                                                                                                                                                                                                                                              107
                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                            1 Similarity 90.3
                                                                                                                             monkey.
                                                                                                                                                                                                                                                                                                                                                                                                      223 AA;
                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95US-0484596
                                            /note=
                                                                              location/Qualifiers
                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                     93.4%;
                                                                                                                                        infertility; sterility; immunocontraceptive;
                                            "Partial sequnence, no start codon given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Harris JD;
                                                                                                                                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                                      Score 226;
Pred. No. 4
                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human; cynomolgus monkey; ZPA;
                                                                                                                                                                                                                                                                                                                                                      4e-20;
                                                                                                                                                                                                                                                                                                                                                                    DB 20;
                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                    223;
                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                            Gaps
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17-NOV-1998

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RESULT
AAY82218
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                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
Inducing reproducible transient or permanent infertility in a mammal comprises administration of homologous and/or heterologous mammalian species zona pellucida proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
07-JUN-1995;
                                                                                                                09-NOV-1992;
29-JAN-1993;
                                                                        Podolski JS,
                                                                                            (ZONA-) ZONAGEN INC.
                                                                                                                                             09-NOV-1993;
                                                                                                                                                                  22-FEB-2000
                                                                                                                                                                                                                             vaccine;
                                                                                                                                                                                                                                     Zona pellucida; ZPA; ZPB; ZPC;
                                                                                                                                                                                                                                                         Monkey zona pellucida ZPC SEQ ID NO:49
                                                                                                                                                                                                                                                                              12-JUN-2000
                                                                                                                                                                                                                                                                                                   AAY82218;
                                                                                                                                                                                                                                                                                                                    AAY82218 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence represents a Macaca cynomolgus ZPC protein isol zona pellucida. This protein can be used in a method for specinducing transient infertility or permanent sterility in a ho animal by selective vaccination with specific zona pellucida or immunocontraceptively active fragments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isolated zona pellucida DNA from different mammals - products which can be used for vaccination to induce infertility or permanent sterility in female mammals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 12; Column 145-148; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                          7
                                                    2000-269144/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999-023447/02
                                           AAZ95677
                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV64820.
                                                                                                                                                                                                                            immunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                            (first entry)
                                                                        HSu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93US-0149223.
92US-0973341.
93US-0012990.
95US-0484993.
                                                                                                               92US-0973341
93US-0012990
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,
                                                                                                                                             93US-0149223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0484993
                                                                                                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                       93.4%;
                                                                        Harris
                                                                                                                                                                                                                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                                                                                            ω,
                                                                                                                                                                                                                                                                                                                                                                                                                   Score 226; DB 2
Pred. No. 4e-20;
                                                                                                                                                                                                                           : infertility; permanent sterility; contraceptive; immunostimulatory.
                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                    AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                               DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   used to develop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         transient
                                                                                                                                                                                                                                                                                                                                                                                                                                223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    n isolated from
r specifically
a host
                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          proteins
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a method for inducing reproducible CC transient infertility in a female mammal, including humans, by selective cd administration of homologous and/or heterologous mammalian species coma pellucida (ZP) proteins or immunocontraceptively active fragments. CC Also described are: (1) a method for inducing transient infertility in a mammal by administering directly an antibody directed to a ZPB or an cc immunologically active fragment selected from feline, bovine, cc cynomologous monkey or human ZPB polypeptides; (2) an isolated, purified cc crombinant feline, bovine, cynomologous monkey or human ZPB polypeptide cor immunologically active fragment; and (3) a fusion protein comprising a ZPB polypeptide which is conjugated with a compound selected from keyhole limpet haemocyanin, muramyl dipeptide, histidine-tag, beta-gal, cor palmitic acid where the fusion protein remains effective to stimulate production of antibodies that recognise a ZPB polypeptide. The method is useful for providing transient or permanent infertility or sterility in humans and animals. The present sequence represents monkey ZPC, which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                  09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                         Example 12; Columns 145-146; 84pp;
                                                                                                                                                                      Podolski JS,
                                                                                                                                                                                                                                                                                                                              14-DEC-1999.
                                                                                                                                                                                                                                                                                                                                                              US6001599-A.
                                                                                                                                                                                                                                                                                                                                                                                                                         controllable;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                               02-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                      Zona pellucida; ZPA; ZPB; ZPC; purified; mammalian; glycoprotein; target; immunocontraception; vaccine; antibody; transient; infert controllable; predictable; permanent; sterility; side effect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cynomolgus monkey oocyte zona pellucida protein ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY52692 standard; Protein; 223
                                                                                                                                                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                          Macaca cynomolgus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 12; Column 147-148; 85pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 Similarity
37; Conserv
                                                                                          transient sterility
                                                                                                        DNA encoding mammalian zona pellucida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                     Hsu KT,
                                                                                                                                                                                                                                93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                 95US-0458731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93.4%;
                                                                                                                                                                      Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 226; DB 2
Pred. No. 4e-20;
                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                        proteins useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        223;
                                                                                                                                                                                                                                                                                                                                                                                                                                       infertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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This sequence represents a mammalian zona pellucida protein, ZPC The zona pellucida is a complex matrix surrounding the mammalian oocyte, formed of glycoproteins secreted by ovarian cells. The

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RESULT
AAY52183
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         X PX S X Z
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                         09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
ZPA. The zona pellucida is a complex matrix surrounding the mammalian occyte, formed of glycoproteins secreted by ovarian cells. The previously mentioned ZPA proteins can be used to produce a fusion protein to stimulate production of antibodies in a mammal that recognize a ZPA polypeptide of the mammal. The ZPA polypeptides are useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polynucleotides encoding zona pellucida proteins from other mammalian species. Administration of zona pellucida proteins to a host animal results in a specific immunocontraceptive effect. Administration of purified ZPA and/or ZPB induces transient infertility in females. Fertility can be maintained in an on or off condition in a controllable/predictable fashion. Administration of ZPC induces permanent sterility. Use of a purified zona pellucida protein rather than a complex mixture of zona pellucida proteins reduces the potential for unwanted side-effects which may be harmful.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           are useful as targets for immunocontraceptive vaccines. Polynucleotides encoding these proteins can be used for recombinant protein production, and as probes in hybridisation methods for the isolation of
                                                                                             Sequences AAY52181-Y52183 are monkey zona pellucida proteins ZPA, ZPB, and ZPC. The invention relates to isolated and purified zona pellucida proteins from mammals, specifically canine, feline and bovine ZPA or their biologically active fragments also porcine and cynomolgus monkey
                                                                                                                                                                                                                                                                                WPI; 2000-022762/02.
N-PSDB; AAZ37824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5989550-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Monkey zona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY52183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY52183 standard; Protein; 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                        Example 12; Column
                                                                                                                                                                                                                          Isolated and purified mammalian zona pellucida proteins methods of immunocontraception \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                    Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                        (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Macaca cynomolgus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fusion protein; vaccimmunocontraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zona pellucida protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention relates to zona pellucida proteins ZPA, ZPB and ZPC, which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            swfpvegpadicqccskgdcgtpshsrrqphvvsqwsrsas 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pellucida protein C (ZPC) amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                  Hsu KT,
                                                                                                                                                                                                                                                                                                                                                                                                         93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95US-0480150.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93.4%;
90.2%;
                                                                                                                                                                                                                                                                                                                                    Harris JD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contraceptive;
                                                                                                                                                                                     84pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZPB; ZPC; oocyte; ovarian cell; antibody;
traceptive; fertilization; fertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 226; DB 2
Pred. No. 4e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Polynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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AAY52987
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                       The present invention describes recombinant zona pellucida (ZP) proteins, specifically ZPC proteins. Also described are fusion proteins of ZPC with any of keyhole limpet haemocyanin, muramyl dipeptide, histidine tag, beta-galactosidase or palmitic acid, capable of stimulating mammalian antibodies that recognise mammalian ZPC. Recombinant ZPC proteins are used to immunise animals to induce transient infertility or permanent female sterility, in humans or other mammals. AAZ33243 to AAZ33254, AAZ33270 to AAZ33274 and AAZ33255 encode mammalian ZP proteins given in AAY52971 to AAZ33284 represent oligonucleotides AAZ33255 to AAZ33269 and AAZ33275 to AAZ33284 represent oligonucleotides
                                                                                                                                                                                                      Claim 14; Column 145-146; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US5976545-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY52987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polypeptide reduces the need for a complex mixture of many ZP proteins which may create unwanted and harmful side effects. The duration of transient fertility is controllable and can be maintained in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vaccines for selectively effecting transient infertility in mammals. has an important role in maintaining the occyte and in occyte-sperm interactions and so is a target for a contraceptive agent which interferes with the fertilization process. Providing a specific
                                                                                                                                                                                                                                                                                                                                                                                              09-NOV-1993;
09-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cynomolgus monkey zona pellucida ZPC protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY52987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             controllable and/or predictable fashion.
                           used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                               N-PSDB; AAZ33274
                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                        Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zona pellucida; ZPA;
immunocontraceptive;
                                                                                                                                                                                                                                                  New recombinant mammalian zona pellucida C proteins,
                                                                                                                                                                                                                                                                                                                                                   (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                  29-JAN-1993;
                                                                                                                                                                                                                                  emale sterility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107
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37; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                        Hsu KT,
                                                                                                                                                                                                                                                                                                                                                                               93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0484158
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90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZPB; ZPC;
                                                                                                                                                                                                                                                                                                                          Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           223
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Pred. No. 4e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           infertility; sterility; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immunisation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
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                                                                                                                                                                                                                                                  for induction of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223;
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Sequence

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RESULT 12
AAR53498
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AAR22239
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Best Local :
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Best Local 9
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                                                                                                                           Matches
                                                                                                                                                                                                                              zona pellucida ZP3 obtd. by screening a human genomic EMBL3 library with a labelled ZP3 probe. The human gene was found to comprise 8 exons spread over 20 kb genomic DNA. cDNA clones were isolated and expressed in CHO cells. Elucidation of the ZP3 sequence will allow prodn. of large amts. of the protein by recombinant techniques. The protein and derived polypeptides may be used to prep. an immunocontraception by either active or passive immunisation. The polypeptide and antibodies (and anti-idiotype antibodies) directed to it may be useful in diagnostic kits.
                                                                                                                                                                                                                                                                                                                                                                                                        Claim 3; Fig 2; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Human zona pellucida protein ZP3 and contraceptive vaccines or diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1992-096892/12.
N-PSDB; AAQ22997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR22239 standard;
                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                         The protein sequence was deduced from the nucleotide sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Van Duin M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ALKU ) AKZO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-AUG-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-1992.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zona pellucida; antigenic; epitopes; fertillisation; gametes; immunocontraception.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human ZP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR22239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107 swfpvegpadicgccskgdcgtpshsrrqphvvsqwsrsas 147
                                                          309 wfpvegpadicqccnkgdcgtpshsrrqphvmsqwstsas 348
                                                                                                                         Local Similarity
nes 37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                          N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                            WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 l Similarity
37; Conser
                                                                                                                                                                                                     372 AA;
                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٧
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90EP-0202287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91WO-EP01538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 341..360 /note= "antigenic e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                        93.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93.4%;
90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "antigenic epitope"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           372
                                                                                                                                        Score 225; DB 13;
Pred. No. 8.7e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 226;
Pred. No. 4
                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No. 4e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                       fragments - useful as medical kits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 μ.
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                                                                                                                                                      Length
                                                                                                                         Indels
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                                                                                                                                                        372;
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                                                                                                                         Gaps
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RESULT 1
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                                                                                                                                                                                                                                                                      Matches
                             Key
Protein
                                                                                                                                                                                                                                                                                                                                                         The marmoset ZP3 gene was isolated by PCR from total mamoset RNA using PCR primers corresp. to regions of the human ZP3 gene. ZP3 (the sperm receptor) is useful as an immunocontraceptive and as a diagnostic reagent e.g. to detect sperm function, to monitor the effects of vaccination, for imaging follicles, to detect ZP3-relation autoimmune disorders or ZP3-expressing tumours or to screen for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zona pellucida; glycoprotein 3; sperm receptor; immunocontraceptive;
diagnosis; tumour; autoimmune disease.
                                                                                                                                                                   AAR55199 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         New polypeptide(s) with marmoset ZP3 activity - are useful as immuno-contraceptive vaccines and in diagnosis, also test system for contraceptive development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Callithrix jucchus.
                                                             Canis familiaris
                                                                                   Dog; canine;
                                                                                                        Canine zona pellucida ZPC protein.
                                                                                                                              31-JAN-1995
                                                                                                                                                   AAR55199;
                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                autoantibodies against ZP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 15; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAQ63673.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1994-167461/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aitken RJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AKZU ) AKZO NOBEL NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-OCT-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9410304-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Marmoset ZP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-NOV-1994
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                                                                                                                                                                                                                             308
                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                 1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRS
                                                                                                                                                                                                                            swfpvegpadicqccskgdcgtpsharrqphvvslgsgs
                                                                                                                                                                                                                                                                                                                             424 AA;
                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Koothan T;
                                                                                                                             (first entry)
                                                                                    zona
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92EP-0310026.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93WO-EP03014.
                   /label= canine_ZPC
                                       location/Qualifiers
                                                                                   pellucida;
                                                                                                                                                                                                                                                                                79.3%;
                                                                                                                                                                         426
                                                                                    ZPC;
                                                                                                                                                                                                                                                                                Score 192; DB 1
Pred. No. 1e-15;
                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                        AA.
                                                                                     immunocontraception
                                                                                                                                                                                                                                                                                            DB 15;
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                                                                                                                                                                                                                                                                                            Length 424;
                                                                                                                                                                                                                                                                                                                                                                       detect ZP3-related
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Best Local
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                                                                                                                                                                                      09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contraceptive; porcine; pig; zona pellucida; mammal; lapine; canine; dog; rabbit; feline; cat; bovine; cow; human; cynomolgus monkey; ZPA, ZPB; ZPC; infertility; veterinary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            used as probes in Southern hybridisations. Sequences coding for canine ZPA and ZPC proteins were obtained (AAQ65608 and AAQ65609, respectively). AAR55199 is the deduced amino acid sequence for ZPC
WPI; 1999-633318/54
N-PSDB; AAZ22714.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY42472 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A commercially available 16 week old canine ovarian cDNA expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 40; Page 92-93; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of zona pellucida proteins and antibodies - for inducing reproducible transient infertility or permanent sterility in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1994-183156/22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                   US5981228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Canine zona pellucida ZPC protein.
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                                                                                    Podolski JS,
                                                                                                                                                                                                                                                                                                                                                  09-NOV-1999
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                                                                                    Hsu KT,
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92US-0973341.
93US-0012990.
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93US-0012990.
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                                                                                       Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           426
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Pred. No. 1e-10;
""Sematches 11;
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AAW81809
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Best Local S
Matches 24
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09-NOV-1992;
29-JAN-1993;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            zona pellucida proteins from mammalian, especially porcine, lapine, canine, feline, bovine, human or cynomolgus monkey sources. The zona pellucida proteins (ZPA, ZPB, and ZPC) are used in the induction of transient or permanent infertility. At present the method is used in veterinary applications to induce transient or permanent infertility in porcine, lapine, canine, feline, bovine, and cynomolgus monkeys.
                                                                                                                                                                                                                                                                                                                                                                                                                          Canine ZPC protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalian zona pellucida proteins used to infertility -
                                                                                        Claim 5; Column 78-80; 84pp; English.
                                                                                                            Isolated zona pellucida DNA from different mammals - used to d products which can be used for vaccination to induce transient infertility or permanent sterility in female mammals.
                                                                                                                                                         WPI; 1999-023447/02.
N-PSDB; AAV64791.
                                                                                                                                                                                            Harris
                                                                                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                                                                                                                                       17-NOV-1998
                                                                                                                                                                                                                                                                                                                                              US5837497-A
                                                                                                                                                                                                                                                                                                                                                                                          vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                     ZPC; zona pellucida; infertility; sterility; immunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW81809;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW81809 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents the canine zona pellucida ZPC protein. The invention relates to the isolation of novel nucleotide sequences encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 3; Column 73-76; 84pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           infertility
                                                                                                                                                                                                                  (ZONA-) ZONAGEN INC.
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93US-0012990.
95US-0484993.
                                                                                                                                                                                                                                                                         93US-0149223
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Pred. No. 1
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This sequence represents a canine ZPC protein isolated from zona pellucida. This protein can be used in a method for specifically inducing transient infertility or permanent sterility in a host animal by selective vaccination with specific zona pellucida protein animal by selective vaccination with specific zona pellucida protein animal by selective vaccination with specific zona pellucida protein sequences.

proteins

or immunocontraceptively active fragments

Sequence

426 AA;

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GenCore version Copyright (c) 1993 - 2000

4.5 Compugen Ltd

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                   Score
 protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length: 0
length: 2000000000
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Match
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1: /ggn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
  BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             July 12, 2001, 08:24:10; Search time 24.08 Seconds (without alignments) 34.299 Million cell up
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242
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 US-08-453-472-7
US-08-038-948-4
US-08-0453-952-7
US-08-862-903-7
US-08-484-9388-49
US-08-484-9388-49
US-08-484-9388-49
US-08-484-9388-49
US-08-484-9388-19
US-08-484-9388-12
US-08-484-9388-12
US-08-484-1588-12
US-08-484-1588-12
US-08-484-1588-12
US-08-484-1588-12
US-08-484-1588-18
US-08-483-472-8
US-08-483-472-8
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US-08-483-948-2
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SEQUENCE CHARACTERISTICS:
LENGTH: 424
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: protein

RESULT 1 US-08-453-472 Sequence 7, Patent No. Patent No. Patent IN APPLICAN FITLE OF FITLE OF FITLE OF FITLE OF COUNTR ZIP: COMPUTER APPLIC FILING CUMPUT OPERAT SOFTWA APPLIC FILING FILING CLASSI PRIOR AP APPLIC FILING CHAPT APPLIC FILING FI		1
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RIEN CONTRACEPTIVE VACCINE BASED ON ALLOIMMUNIZATION WITH POLYPEPTIDES 12 5 FINNEGAN VENUE  M: V DISK OMPARTIBLE PC-DOS/MS-DOS ECT 5.1 ATA: US/08/453,472 Y-1995 5 10S 08/038,948 US 08/038,948 US 07/930,462 G-1992 A: 0S 07/930,462 G-1992 G-1993 G-1992 G-1993 G-1	-484-938-6 -484-9368-6 -484-9368-6 -484-9368-6 -488-731-6 -484-9388-2 -484-9388-2 -484-5968-2 -484-938-8 -484-938-8 -484-938-8 -484-938-8 -484-938-8 -484-938-8 -484-938-8	) )
WITH ZONA		
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ORIGINAL SOURCE:

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US-08-038-948-4
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                                                                                      TELEX: 6714627 CUSH INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-UTW-1989
ATTORNEY_ACENT INFORMATION:
NAME: SCOTT, Watson T.
                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                  REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 99:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
TELEFAX: (202) 822-0944
                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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TISSUE TYPE:
                          TYPE: amino acid
STRANDEDNESS: si
                                                                                                                                                                                   NAME: SCOTT, Watson T. REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 20005-3918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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TOPOLOGY: 1
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                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
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                                                         424 amino acids
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              linear
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                                                                                                                                                                                                                                                                                                                                           26-MAR-1993
                        single
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95.18;
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Pred. No. 6.4e-21;
1; Mismatches 1
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US-08-453-952-7; Sequence 7, Application US/08453952; Patent No. 5672488
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 36,434
REFERENCE/DOCKET NUMBER: 2026
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
TELEFX: 421792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                       ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-SOPERIAN PC-DO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07 FILING DATE: 20-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/453,952
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/364,379 FILING DATE: 12-JUN-1989
TISSUE TYPE:
                                            HAPLOTYPE:
                                                                      INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
                                                                                                                                                                              ORGANISM:
                                                                                                                                                                                                                                                                                          TOPOLOGY: unl
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                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             345 PARK AVENUE
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                                                                                                                                                                                                                                                                                   unknown
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                                                                                                                                                                                                                                                     protein
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95.1%;
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Pred. No. 6.4e-21;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2026-4032 US4
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NAME/KEY:

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LOCATION

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US-08-862-903-7
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                                                                                                                                                                                                                                                                                        FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
NAME: DOROTHY R. AUTH
                                                                                                                                                                           TELEX: 421792
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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MEDIUM TYPE: FLOPPY
                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
                                                               MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-SOFTWARE: WORDPERFECT 5.1
                                                                                                        TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                                           TELEFAX:
                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 30 CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                              ORGANISM: human
                                                                                              TOPOLOGY: unknown
DEVELOPMENTAL STAGE:
               INDIVIDUAL ISOLATE:
                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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40. 5916768
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                                                                                                                                                 424
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                                                                                                                                                                                                           (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
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                                                                           protein
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                                                                                                           single
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95.1%;
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BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/862,903
                                                                                                                                                                                                                                                                            36,434
                                                                                                                                                                              7:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 235; DB 1; Length 424; Pred. No. 6.4e-21; Indels 1; Mismatches 1; Indels
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Best Local Similarity
                                                                                TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W
                                                                                                                                                                                                                                                  FILING DATE: 29-JAN-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 514
PRIOR APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                              TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                             FILING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             308 SWFPVEGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSAS 348
                                             TYPE: am:
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTIFICATION METHOD: OTHER INFORMATION: hu
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                                                                                                                     TELEPHONE: 312/474-0448
                                                                                                                                                                                          NAME: Clough, David REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE:
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                                                                        ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chicago
                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Illinois : United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6300 Sears Tower, 233 South Wacker Drive
                                                                          424 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    PatentIn Release #1.0, Version #1.25
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Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Harris Ph.D., Jeffrey D.
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                                             linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Borun
             protein
/desc =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                          09-NOV-92
                                                                                                                                                                                                                                                                                  29-JAN-93
                                                                                                                                                                                                                                                                                                                                                                                         07-JUNE-95
"deduced amino acid sequence of human ZPC"
                                                                                                                                                                                                        David W
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95.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pharmaceutical Compositions for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human ZP3 protein
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                                                                                                                                                                                                                                                                                                                                            08/149,223
                                                                                                                                                                                       36,107
                                                                                                                                                                                32794
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Pred. No. 6.4e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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US-08-484-158B-61

Matches Query Match

Local

Similarity

97.1%; 95.1%;

Score 235; DB 2; Length 424; Pred. No. 6.4e-21; 1; Mismatches 1; Indels

0;

Gaps

0;

Conservative

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RESULT 7
US-08-484-158B-49
· Sequence 49, Application US/08484158B
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                                                                                                                                                                      Matches
                                                                                                                                                                                    Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-484-993B-49
                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA;
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA;
APPLICATION DATA;
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION;
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REGISTRATION NUMBER: 36,107
                                                                                                                                                                                                                                                                                                                             TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 49:
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Patent No. 5837497
                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
                                                                                           107 SWEPVEGPADICOCCSKGDCGTPSHSRROPHVVSQWSRSAS 147
                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                             1 SWFPVOGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 09-NOV
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CITY: Chicago
STATE: Illinoi
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                                                                                                                                                                    1 Similarity
37; Conserv
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                                                                                                                                                                                                                                                                                   amino acid
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                                                                                                                                                               Conservative
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Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Harris Ph.D., Jeffrey D. Hsu, Kuang T.
                                                                                                                                                                                                                                                        protein
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                                                                                                                                                                           93.4%;
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                                                                                                                                                      Score 226; DB 2; Le:

Pred. No. 4.1e-20;

Viematches 1;
                                                                                                                                                                                                                                                                                                                                                                                                        31745
                                                                                                                                                                                    Length 223;
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US-08-484-596A-49
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                                                                                                                                         Patent No. 5981228
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 90.2
Matches 37; Conservative
                                                                                                                                                                            Sequence 49,
               APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acid
                                                                                             APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 5976545
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                   107 SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRICE DATE: 09-NOV-93
PRICE APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-93
FILING DATE: 19-JAN-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 07/973,341
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PRIOR APPLICATION DATA:

OR/149,223
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APPLICATION NUMBER: US/08/484,156
FILING DATE: 07-JUNE-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                      1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHYMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 312/4.
TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 09-NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08, FILING DATE: 09-NOV-93
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Chicago
STATE: Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                       Application US/08484596A
E: Marshall, O'Toole, Gerstein, Murray & Borun
6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RY: United States of America 60606-6402/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223 amino acids
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                        93.4%;
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                                                                                                                                                                                                                                                                                                                                  Score 226; DB 2;
Pred. No. 4.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32794
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                                                                                                                                                                                                                                                                                                                                                  Length 223;
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COUNTRY:

United States of America

Chicago : Illinois RY: United 60606-6402

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/1 FILING DATE: 11-NOV-1993 PRIOR APPLICATION DATA:
                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Re-lease #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: 08/149,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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MEDION TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                              STREET: Chicago
                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Materials and Methods for Immunocontraception
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TELEFAX: JI.,
CEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31
                                                     APPLICATION NUMBER: US/08/480,150A
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
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                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                           RY: 'United States of America 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acid
                                                                                                                                                                                                                                              Illinois
                                                                                                                                                                                                                                                                                  6300 Sears Tower,
                                                                                                                                                                                                                                                                                                                                                                               Hsu, Kuang T
Podolski, Jo
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                                                                                                                                                                                                                                                                                  Marshall, O'Toole, Gerstein, Murray & Borun
00 Sears Tower, 233 South Wacker Drive
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US 08/149,223
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 226; DB 2;
Pred. No. 4.1e-20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 223;
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Sequence 49, Ap.
-- No. 6001
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Best Local Similarity
Matches 37; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
INFORMATION FOR SEQ ID NO:
                                                                                                                                     APPLICATE: 29-JAN-10-1
FILING DATE: 29-JAN-10-1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
APPLICATION NUMBER: 09-NOV-1992
APPLICATION:
                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/458,731 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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TELFAX: 25-3856
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                    NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                           APPLICATION NUMBER: 08/0 FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                TELEFAX:
                                                 TELEPHONE:
                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                          60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Marshall, O'Toole, Gerstein, Murray & Borun 6300 Sears Tower, 233 South Wacker Drive
                               312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                          United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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09-NOV-1992
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49:
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Pred. No. 4.1e-20;
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                                                                                                                                                                                                                                                                                                                                    Version #1.25
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US-08-149-223A-49
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Best Local Similarity
"-+ hes 37; Conserv:
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                                                                   Matches
                                                                                                Query Match
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                                                                                                                                                                                                                                 TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 09-NOV-1993
CLASSIFICATION: 424
PRIOR APPLICATION NOTA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
                                                                                                                                                         TOPOLOGY: 11
                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25
107 SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acid:
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              1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                Local Similarity
                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                          NAME: Clough, David W REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/149,223A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: United States of America ZIP: 60606-6402
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER:
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                                                                   37;
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Podolski, J
                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                         acid
                                                                                                                                                        protein
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                                                                            93.4%;
90.2%;
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                                                                                                                                                                                                                                                                                                                        36, 107
                                                                           Score 226; DB 3; Pred. No. 4.1e-20;
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Pred. No. 4.1e-20;
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                                                                                         Length 223;
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US-08-484-993B-12
                                                                                                                                              Sequence 12, Application US/08484158B Patent No. 5976545
                                                                                                                                           Patent No.
                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                          GENERAL INFORMATION:
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Patent No. 5
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INFORMATION FOR SEQ ID NO:
                                                                            APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/012
FILING DATE: 29-7AN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
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                  CORRESPONDENCE ADDRESS:
                                               TITLE OF INVENTION:
                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 31 TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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les 24; Conserv
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                                                                                                                                                                                                                                                             2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Clough, David W. REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
GY: linear
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                                                                                          Hsu, Kuang
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                                                                                                            Harris Ph.D., Jeffrey D.
                                                                            Podolski,
                                                                                                                                                                                                                                                                                                Conservative
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Podolski, Joseph S.
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 Marshall,
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                                                                                                                                                                                                                                                                                                               62.4%;
                                                          Pharmaceutical Compositions for
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                                             Immunocontraception
                                                                            Joseph S.
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O'Toole, Gerstein, Murray &
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Pred. No. 7.5e-11;
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                                                                                                                                                                                                                                                                                                                            Length 426;
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RESULT 14
US-08-484-596A-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
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            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS LENGTH: 426 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-93
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole,
STREET: 6300 Sears Tower, 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
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PRIOR APPLICATION NUMBER: 08/149,223
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TELEFAX: 25-3856
                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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FILING DATE: 07-JUNE-95
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                KY: United States of America
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                                                                                                                    Illinois
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PatentIn Release #1.0, Version #1.25
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60.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                      Gerstein, Murray & Borun
South Wacker Drive
                                                                                                                                                                                                                         for Immunocontraception
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                    CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/149,223
FILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                             APPLICATION NUMBER: 07/973,341 FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/1 FILING DATE: 11-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/484,596A FILING DATE:
                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: United States of America ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                           SOFTWARE:
                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME:
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Chicago
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amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                      Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                         PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Harris Ph.D., Jeffrey D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
TELEFAX: 312/474-0488
TELEFAX: 312/474
TELEFAX: 312/474-0488
TELEFAX: 312/474
TELE
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OM protein - protein search, using sw model Rיan on: July 12, 2001, 08:24:10 ; Search time 41.53 Seconds (without alignments) 75.202 Million cell updates/sec GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

Title: Perfect score: Sequence:

US-09-252-828A-2
242
1 SWFFPYQGPADICQCCNKGDC......TPSHSRRQPHYMSQWSRSVS 41

Secoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

219241 seqs, 76174552 residues

Searched:

219241

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR\_68:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

procein Finzi.io [	пуосус		3/9	1.22	• 0	
hypothetical prote	C72508	N	351	22.1	53.0	28
myc-associated zin	JC5076	N	497	22.3	5	27
zinc finger protei	A42170	N	494	22.3	54	26
g	A47236	N	477	•	54	25
P21 protein - soyb	A33176	ν	202	•	54	24
M 6 protei	148101	ຎ	735	٠	54.5	23
egg membrane prote	S52847	N	424	•	. 54.5	22
AC133 antigen - hu	T09050	N	865	•		21
prominin - mouse	T08881	N	858	٠		20
probable intercell	A45054	Ν	641		55	19
serotonin receptor	JN0591	N	436	•		18
Frizzled-1 protein	JE0337	2	647	•	56	17
leucyl-tRNA synthe	G81698	N	819	23.3	56.5	16
protein YBR056w-a	S78705	N	66	24.0	58	15
Ig alpha chain C r	S09269	N	357	24.2	58.5	14
-	IJHUG3	<u></u>	999	24.4	59	13
a	S35573	N	58	24.4	59	12
hetical p	в82720	ν	99	•	60.5	11
	B44365	N	44	٠	98	10
zona pellucida gly	S70401	Ŋ	415	41.3	100	9
zona pellucida gly	S70402	<u>, , , , , , , , , , , , , , , , , , , </u>	421		109	80
ellucida	S70433	Н	421	٠	119	7
	A30334	_	424	52.1	126	6
zona pellucida gly	S70399	N	424	56.2	136	ر د
gly	A60503	سا	422	59.1	143	4
zona pellucida gly	S70396	N	426	62.4	151	ω
-	A56844	N	210	89.7	217	2
rm-bindi	A36000	_	424	97.1	235	1
Description	ID	B	Length	Match	Score	No.
				*		Eee : 1+
				,		

RESULT 2
A55844
POM-ZP3 protein - human
C;Species: Homo sapiens (man)
C;Date: 19-Oct-1995 #sequence\_revision 19-Oct-1995 #text\_change 05-Nov-1999

Qy В

444	38 40 41	35 35 37	30 32 33
51.5 51.5	52.5	52.5 52.5 52.5	53.5 53 52.5
21.5	21.7 21.7 21.7 21.7	21.7 21.7 21.7 21.7	22.1 21.9 21.9 21.7
96/ 127 339 339	444 449 449	447 447 447 447	738 197 563
2222	00000	N N N N	0000
F86214 T08097 F86614 B72011	\$10507 \$08534 \$06724 \$21989	S17434 JS0719 JC1454 S66339	T00343 I46413 T47520 S39505
protein "buzzz (1 ) osmotin - sweet or phenylalanyl tRNA phenylalaninetRN	translation elonga translation elonga translation elonga translation elonga	translation elonga translation elonga translation elonga translation elonga	hypothetical prote keratin KAP5.5 - s hypothetical prote translation elonga

### ALIGNMENTS

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A; Residues: 1-422 < KIN>
A; Cross-references: GB:M63629
A; Cross-references: GB:M63629
A; Note: the authors translated the codon CAA for C; Comment: This sulfated glycoprotein in the zc C; Superfamily: sperm-binding glycoprotein ZP3; C; Keywords: glycoprotein; cocyte C; Keywor
                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Genomic organization and polypeptide primary A;Reference number: A60503; MUID:91078540 A;Accession: A60503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sperm-binding glycoprotein ZP3 precursor - golden hamster N;Alternate names: sperm receptor; Zona pellucida glycoprotein C;Species: Mesocricetus auratus (golden hamster) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Harris, J.D.; Hibler, D.W.; Fontenot, G
DNA Seq. 4, 361-93, 1994
A;Title: Cloning and characterization of
A;Reference number: S70396; MUID:95143578
A;Accession: S70396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           zona pellucida glycoprotein C - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 28-Oct-1996 #sequence_revision
C;Accession: S70396
                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R; Kinloch, R.A.; Ruiz-Seiler, B.;
Dev. Biol. 142, 414-421, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: A60503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-426 <HAR>
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R;Kipersztok, S.; Osawa, G.A.; Liang, L.; Modi, W.S.; Dean, J.
Genomics 25, 354-359, 1995
A;Title: POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121 homologue.
A;Reference number: A56844; MUID:95309900
A;Accession: A56844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: EMBL:U05780; NID:g458276; PIDN:AAA74387.1; PID:g458277 C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology F;43-299/Domain: ZP domain homology <ZPH>
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A; Molecule type: mRNA
A; Residues: 1-210 <KIP>
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A;Cross-references: GB:U10099;
                                      Query Match
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Best Local
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       Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS
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main: ZP domain
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36; Conserv
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       59.1%;
56.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62.4%;
60.0%;
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                                                                                                                                 homology <ZPH>
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Pred. No. 1.2e
5; Mismatches
Score
Pred.
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Pred. No. 9.7e-19;
2; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-Feb-1997 #text_change 20-Aug-1999
   143;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zona pellucida
   1e-09;
                                                                                                                                                                                                for residue 251 as Glu, and zona pellucida of the oocyte 3; ZP domain homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
.2e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #text_change 10-Sep-1999
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                               Length 422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 426
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           structure of
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                                                                                                                                                                                                                                   oocyte
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R;Rosiere, T.K.; Wassarman, P.M. Dev. Biol. 154, 309-317, 1992
A;Title: Identification of a region of mouse zona pellucida glycoprotein mZP3 that po A;Reference number: A48823; MUID:93050795
A;Accession: A48823
                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-423 < KIN>
A; Residues: 1-423 < KIN>
A; Coss-references: EMBL: X14376
A; Kinloch, R.A.; Roller, R.J.; Fimiani, C.M.; Wassarman, Proc. Natl. Acad. Sci. U.S.A. 85, 6409-6413, 1988
A; Title: Primary structure of the mouse sperm receptor pc A; Reference number: A31232; MUID: 88320451
A; Accession: A31232
                                                                                                                                                                                                                                                                                                                                                                                                           R;Kinloch, R.A.; Wassarman, P.M.
Nucleic Acids Res. 17, 2861-2863, 1989
A;Title: Nucleotide sequence of the gene (
A;Reference number: S04189; MUID:89240048
A;Accession: S04189
A;Status: translation not shown
                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-152, 'E', 154-252, 'E'
                                                                                                                            A; Cross-references: EMBL: J03851
                                                                                                                                                                                                 A; Status: not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:M20026; NID:g1663713; R;Kinloch, R.A.; Wassarman, P.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA; mRNA
A; Residues: 1-424 <RIN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: A30334; S04189; A31232; R;Ringuette, M.J.; Chamberlin, M.E.; Dev. Biol. 127, 287-295, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Alternate names: sperm receptor; zona pellucida glycoprotein ZP3; ZP3 gly C;Species: Mus musculus (house mouse) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:U05778; NID:g458272; PIDN:AAA74390.1; PID:g458273 C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology F;43-299/Domain: ZP domain homology <ZPH>
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A; Residues: 1-424 <HAR>
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A;Title: Cloning and characterization of zona pellucida genes and A;Reference number: S70396; MUID:95143578
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Pred. No. 7.1e-09;
3; Mismatches 15
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Baur,
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C:Genetics:
A;Introns: 103/3; 143/2; 178/1; 239/2; 278/3; 309/2; 355/1
A;Introns: 103/3; 143/2; 178/1; 239/2; 278/3; 309/2; 355/1
A;Introns: 103/3; 143/2; 178/1; 239/2; 278 domain homology
C:Superfamily: sperm-binding glycoprotein; transmembrane protein
F:1-22/Domain: signal sequence #status predicted <SIG>
F:1-22/Domain: signal sequence #status predicted <MAT>
F:23-424/Product: sperm-binding glycoprotein ZP3 #status predicted <MAT>
F:45-302/Domain: ZP domain homology <ZPH>
F:146,304,327,330/Binding site: carbohydrate (Asn) (covalent) #status experimental
F:273/Binding site: carbohydrate (Asn) (covalent) #status experimental
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S70402
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NA Seq. 4, 361-93, 1994

R:Title: Cloning and characterization of zona
R:Reference number: S70396; MUID:95143578
R:Accession: S70433
A;Molecule type: mRNĀ
A;Residues: 1-421 <HARA
A;Residues: 1-421 <HARA
A;Cross-references: EMBL:U05775; NID:g458266; PIDN:AAA74385.1; PID:g458267
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
E;44-300/Domain: ZP domain homology <ZPH>
                                                                                                                                              R;Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hsu, K.T.; Yurewicz, E.C.; Sacco, A.G. DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida genes and cDNAs from a variety A;Reference number: 570396; MUID:95143578
A;Accession: S70402
A;Status: preliminary
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A; Residues: 1-421 <HAR>
A; Residues: 1-421 <HAR>
C; Superfamily: sperm-binding glycoprotein ZP3; ZP
F;44-300/Domain: ZP domain homology <ZPH>
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c;Species: Sus scrofa domestica (domestic pig)
c;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
c;Accession: S70433
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A:Residues: 1-152,'E',154-252,'E',254-424 <ROS>
A:Experimental source: ovary
                                                                                                                                                                                                                                                                                                                zona pellucida glycoprotein C - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: S70402
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C;Comment: This sulfated glycoprotein in the zona pellucida of the occyte is a receptor
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Pred. No. 7.4e-07;
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Query Match

45.0%;

Score 109;

DB 1;

Length 421;

A; Title:

The genome sequence of the plant pathogen Xylella fastidiosa

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hypothetical protein XF1139 [imported] - Xylella fastidiosa (strain 9a5c) C;Species: Xylella fastidiosa C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 20-Aug-2000 C;Accession: B82720 R;Anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Nature 406, 151-157, 2000
                                                                                                                                                                                                                                                                                                                                                                                                    A;Experimental source: ovary
A;Note: sequence extracted from NCBI backbone (NCBIN:123950, NCBIP:122393)
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
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A;Molecule type: nucleic acid
A;Residues: 1-44 <VAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Reference number: A44365; MUID:93122771
A;Accession: B44365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;van Duin, M.; Polman, J.E.; Verkoelen, C.C.; Bunschoten, H.; Meyerink, J.H.; Olijve Genomics 14, 1064-1070, 1992
A;Title: Cloning and characterization of the human sperm receptor ligand ZP3: evidenc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Homo sapiens (man)
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 12-May-1995
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C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
F;41-295/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-415 <HAR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R; Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hsu, K.T.; DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida A;Reference number: S70396; MUID:95143578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997
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Best Local
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                                                                                                                                                                                                                                       22 TPSHSRRQPHVMSQWSRSVS
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3; Mismatches 10;
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Pred. No. 0.00013;
                                                                                                                                                                                                                                                                                                                           Score 98;
Pred. No.
                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                         ; DB 2;
. 4e-05;
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                                                                                                                                                                                                                                                                                                                                             Length 44;
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R;Amagai,
Cell 67, 8
                                         desmoglein 3 precursor - human
N;Alternate names: pemphigus vulgaris antigen
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1993 #sequence_revision 30-Jun-1993
C;Accession: A41088
                                                                                                                                                                                                                                      RESULT 13
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Biol. Chem. Hoppe-Seyler 374, 411-417, 1993
A;Title: Identification of porcine occyte 55 kDa alpha and beta proteins within the zona a pellucida proteins in different mammalian species.
A;Reference number: S35572; MUID:94030657
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: protein
A; Residues: 1-15; 16-30; 31-58 < TOE>
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C:Species: Sus scrofa domestica (domestic pig)
C:Date: 20-May-1994 #sequence_revision 30-Jan-1998 #text_change 07-May-1999
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J.D.; Junqueira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohmitted to GenBank, June 2000

J.D.; Junqueira, M.E.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigran, A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, H.; F.G.; Nunes, L.R.; Matsukuma, A.Y.; Menok, C.F.M.; Miracca, E.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.R.; Rodrigues, V.; Rosa, A.J., de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasak, Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; d. Controller, A.S.; Mander, A.S.; Vettore, A.L.; d. Controller, A.S.; Mander, A.S.; Verjovski-Almeida, S.; Vettore, A.L.; d. Controller, A.S.; vettore, A.L.; d. Controller, A.
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A;Note: for a complete list
A;Accession: B82720
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A; Residues: 1-99 <SIM>
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Best Local Similarity
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869-877, 1991
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45.8%;
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                    Stanley, J.R.
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Pred. No. 2.1;
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Pred. No. 2
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                                                                         #text_change 22-Jun-1999
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F;616-639/Domain: transmembrane #status predicted <MAP: F;646-598/Domain: cadherin repeat homology <CR2>
F;27-157/Domain: cadherin repeat homology <CR2>
F;270-383/Domain: cadherin repeat homology <CR2>
F;270-383/Domain: cadherin repeat homology <CR3>
F;390-495/Domain: cadherin repeat homology <CR3>
F;390-495/Domain: cadherin repeat homology <CR4>
F;496-598/Domain: cadherin repeat homology <CR4>
F;616-639/Domain: transmembrane #status predicted <TMM>
F;640-999/Domain: intracellular #status predicted <TMM>
F;910-938/Domain: desmoglein repeat <DG1>
F;917-966/Domain: desmoglein repeat <CR2>
F;110,180,545/Binding site: carbohydrate (Asn) (covalent)
                                                        protein YBR056w-a - yeast (Saccharomyces cerevisiae)
C;SpecLes: Saccharomyces cerevisiae
C;Date: 15-Jan-1999 #sequence_revision 15-Jan-1999 #text_change 15-Jan-1999
                               C;Accession: S78705
R;Aljinovic, G.; Pol
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 13; Conserv:
                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: immunoglobulin C region; in C;Keywords: immunoglobulin F;142-208/Domain: immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: S09269
A;Status: not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: The IgA heavy-chain gene family in rabbit: cloning and A;Reference number: S09264; MUID:90076124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-357 <BUR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        If alpha chain C region - rabbit (fragment)
C;Species: OryCtolagus cuniculus (domestic rabbit)
C;Date: 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
C;Accession: S09269
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A;Map position: 18q12.1-18q12.2
C;Superfamily: cadherin; cadherin repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Keywords: calcium binding; cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:M76482; NID:g190751; PIDN:AAA60230.1; PID:g190752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Autoantibodies against a novel epithelial A;Reference number: A41088; MUID:92069753 A;Accession: A41088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Gene: GDB: DSG3
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A; Residues: 1-999 < AMA>
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50-615/Domain: extracalina-- ""
                                                                                                                                                                                                                               105 PTPGPSDTTTCPCPCPSPSCGEPSLSLQRP 134
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              ö
    Pohl, F.M.; Pohl, Protein Sequence !
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                24.2%;
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39.3%;
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Pred. No. 10;
3; Mismatches
Database, August 1994
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                             T.M.
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Pred. No.
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A;Reference number: S45906
A;Raccession: S78705
A;Status: preliminary
A;Coss: references: EMBL:Z35925; MTPS:YBR056w-a
A;Experimental source: Strain S288C
C;Genetics:
A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
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C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Experimental source: Strain S288C
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C;Genetics: A;Experimental source: Strain S288C
C;Genetics: A;Expe
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# GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

CM protein - protein search, using sw model

Eun on: July 12, 2001, 08:24:10; Search time 10.02 Seconds (without alignments) 140.167 Million cell updates/sec

Title:
Perfect score:
Sequence: US-09-252-828A-2 242 SWFPVQGPADICQCCNKGDC.....TPSHSRRQPHVMSQWSRSVS 41

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

93435 seqs, 34255486 residues

Searched:

Total number of hits satisfying chosen parameters: 93435

Minimum DB Maximum DB seq length: 0
seq length: 2000000000

Cost-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_39:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result

45	44	43	42	41	40	39	38	37	36	35	34
50	50	50	50	50.5	50.5	50.5	51	51	51	51	51.5
20.7	20.7	20.7	20.7	20.9	20.9	20.9	21.1	21.1	21.1	21.1	21.3
643	269	182	174	622	139	74	1132	1132	281	65	339
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RHOP_MOUSE	IL1B_MOUSE	KRUC_SHEEP	SODC_CAUCR	ACH4_CHICK	IGF_MYXGL	NXLD_ACAAN	DNBI_HSV6Z	DNBI_HSV6U	TRYZ_DROER	TXW6_NAJNA	SYFA_CHLPN
mus	P10749 mus musculu	P26372 ovis aries	P20379 caulobacter	P09482 gallus gall	P22618 myxine glut	P34073 acanthophis	P52538 human herpe				Q9z6r6 chlamydia p

## ALIGNMENTS

DR DR DR DR DR DR DR DR DR KW	888888888	888888888	R R R R R R R R R R R R R R R R R R R	R R R R R R R O C C C C	RESULT ZP3A_H ID Z AC P DT 0 DT 0 DT 3 DE Z GN Z
EMBL; M60504; AAA61336.1; PIR; A35000; A36000. MIM; 182889; InterPro; IPR001507; Pfam; PF00100; zona_pellucida; 1. PRINTS; PR00023; ZPELLUCIDA. PROSITE; PS00682; ZP_DOMAIN; 1. Glycoprotein; Signal; Sulfatation; Sperm; Receptor; Transmembrane;	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).	PH X PH X X PH X X X X X X X X X X X X X	04000 100	Homo sapiens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.  NCBL_TaxID=9606;  [1]  SEQUENCE FROM N.A.  MEDLINE=90349545; PubMed=2385582;  Chamberlin M.E., Dean J.;  "Human homolog of the mouse sperm receptor.";  Proc. Natl. Acad. Sci. U.S.A. 87:6014-6018(1990).	HUMAN ZP3A ZP3A P2179 01-M 01-M 30-M ZONA GLYCC ZP3A

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RESULT 2
ZP3B_HUMAN
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                  Pfam; PF00100; zona_pellucida; PRINTS; PR00023; ZPELLUCIDA. PROSTE; PS00682; ZP_DOMAIN; 1. Glycoprotein; Signal; Sulfatati
                                                                                                                                   EMBL; X56777; CAA40095.1; -. EMBL; A18567; CAA01398.1; -. MIM; 195002; -.
                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a chetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib.
         Extracellular
                                                                                                                InterPro; IPR001507; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in the Caucasian and Japanese populations.";
Genomics 14:1064-1070(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        van Duin M., Polman J.E., Verkoelen C.C., Bunschoten H., Meyerink J.H., Olijve W., Aitken R.J., "Cloning and characterization of the human sperm receptor evidence for a second polymorphic allele with a different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q06633;
Q06633;
01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3B PRECURSOR
GLYCOPROTEIN ZP3B) (SPERM RECEPTOR) (ZP3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=93122771; PubMed=1478648;
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Mammalia;
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NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: FUNCTIONS AS A SPERM-RECEDTOR. IT IS RESPONSIBLE SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE T SPECIES-SPECIFICITY OF THE INSEMINATION.

SUBBUNIT: ZD3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.

PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES.

SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SWEPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
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                                                                                                                                                                                                                  an email to license@isb-sib.ch).
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39; Conser
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95.1%;
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1; Mismatches
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                Sperm; Receptor;
                                                                                                                                                                                                                                  (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Extrement Entropean Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content use by non-profit institutions as long as its content use by non-profit institutions are long as its content use by non-profit institutions are long as its content use by non-profit institutions are long as its content use by and this statement is not removed. Usage by and the long in the long is the long in the long is the
                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                        rram; PF00100; zona_pellucida; 1. PRINTS; PR00023; ZPELLUCIDA.
                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KOLIUTI S.K., KAUL R., Banerjee K., Gupta S.K.;

WALCHOOTIGE sequence of cDNA encoding bonnet monkey (Macaca rad zona pellucida glycoprotein zpg.";

Reprod. Fertil. Dev. 7:1209-1212(1995).

-I- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO SPECIES-SPECIFICITY OF THE INSEMINATION.

-I- SUBUNIT; ZPG FORMS WITH ZPI AND ZPG THE ZONA PELLUCIDA, IN WHICH ZPP AND ZPG COMPLEX INFO COPOLYMENS CROSS-LINKED BY Z WHICH ZPP AND ZPG COMPLEX INFO COPOLYMENS CROSS-LINKED BY Z
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                                                                                                                                                                     Extracellular
                                                                                                                                                                                            Glycoprotein;
                                                                                                                                                                                                                PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                            EMBL; x82639; CAA57961.1; -.
                                                                                                                                                                                                                                                                                                             InterPro;
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9548;
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PF00100; zona_;
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                                                                                                                                                         Signal; Sulfatation; Sperm;
matrix; Multigene family.
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CYTOPLASMIC (POTENTIAL).
ZP.
                                                                              ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A EXTRACELLULAR (POTENTIAL).
                                                                                                                                        POTENTIAL.
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Pred. No. 9.6e
1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bonnet monkey (Macaca radiata)
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C (GLCNAC. . .)
                                                                                                                                                                                   Receptor;
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.6e-21;
                                                                           (POTENTIAL)
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RESULT 4
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    THE TENT TO THE REPORT OF THE PROPERTY OF THE 
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Best Local S
Matches 37
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
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MEDLINE-94363314; PubMed-8081814;
mhillai-Koothan P., van Duin M., Aitken R.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Cloning, sequencing and oocyte-specific expression of the marmoset sperm receptor protein, ZP3.";
Zygote 1:93-101(1993).
-!- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR
                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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Eukaryota; Metazoa; Chord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZP3A_CALSQ
P53786;
                                                                                                                                                                                                                                                                                 PRINTS; PRO0023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no
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                                                                                                                                                                                                                                         Extracellular matrix;
                                                                                                                                                                                                                                                                  Glycoprotein;
                                                                                                                                                                                                                                                                                                                                  InterPro; IPR001507; -.
Pfam; PF00100; zona_pellucida; 1.
                                                                                                                                                                                                                                                                                                                                                                                  EMBL; S71825; AAB31866.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE SPERM-ADHESION TO THE ZONA PELLUCLDA, AND MAY CONTRIBUTE TO SPECIES-SPECIFICITY OF THE INSEMINATION.

SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: CONTAINS 1 ZP DOMAIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 348
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37; Conserv
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nilarity 90.2%;
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                                                                                                                                                                                                                                         Multigene family.
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Pred. No. 2.5e-20;
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N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
3B41C4CFA3792331 CRC64;
                                                                                                                    CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                POTENTIAL
                                                                                                                                                                                               ZONA PELLUCIDA
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ERM RECEPTOR) (ZP3).
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RESULT 5
ZP3_CANFA
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Best Local S
Matches 32
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DOMAIN
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P48831;
                                                                                           EMBL; U05780; AAA74387.1; -.
EMBL; D45070; BAA08098.1; -.
InterPro; IDR001507; -.
Pfam; PF00100; zona_pellucida;
PRINTS; PR00023; ZPELLUUIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                             "Cloning and characterization of zona a variety of mammalian species: the ZI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutelo
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                          CHAIN
                                                      SIGNAL
                                                                         PROSITE; PS00682; ZP_DOMAIN; 1.
Glycoprotein; Signal; Sulfatation;
                                                                                                                                                              or send an
                                                                                                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                  the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation
                                                                                                                                                                                                                                                    - ! - SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sacco A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=95143578; PubMed=7841460; Harris J.D., Hibler D.W., Fontenot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Canis familiaris (Dog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZP3 OR ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLYCOPROTEIN ZP3) (SPERM RECEPTOR) (ZONA PELLUCIDA
                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  308
                                                                                                                                                                                                                                                                         PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
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                                                                                                                                                                                                                                                                                    MATRIX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 y or mammalian species: the 4:361-393(1994).
                                                                                                                                                              email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 424 AA;
 23
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386
407
43
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                                                                 matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
426
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305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79.3%;
82.1%;
                                                                 Multigene family.
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 POTENTIAL.
CYTOPLASMIC
ZP.
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Pred.
                                ZONA PELLUCIDA
EXTRACELLULAR (
                                                      POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              G.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     192; DB 1;
No. 3.1e-16;
                                                                          Sperm;
                                                                                                                                                                                                                                                                                                                                                                                                                                ZPA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                        pellucida
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hsu
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                                                                          Receptor; Transmembrane;
                                           SPERM-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                             ida genes and and ZPC gene
                                                                                                                                                                                     Usage
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families.";
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ZP3_MESAU

STANDARD; PRT; 422 AA.

P23491;
01-NOV-1991 (Rel. 20, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 33, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCII ZONA PELLUCII (SPERM RECEPTOR) (ZONA PELLUCII C).
                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Best I
                                                  TRANSMEM
                                                                                        SIGNAL
                                                                                                                     PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1
                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                         EMBL; M63629; AAA37079.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                         Kinloch R.A., Ruiz-Seller B., Wassarman P.M.;
"Genomic organization and polypeptide primary structure of zona
pellucida glycoprotein hzp3, the hamster speim receptor.";
Dev. Biol. 142:414-421(1990).

1. FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR
SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE
SPECIES-SPECIFICITY OF THE INSEMINATION.

1. SUBCULES-SPECIFICITY OF THE INSEMINATION.
WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

1. SUBCELLULAR LOCATION: TYPE I MEMBERANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                InterPro; IPR001507;
                                                                                                      lycoprotein; Signal; Sulfatation; Sperm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=91078540; PubMed=2257975;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mesocricetus auratus (Golden hamster).
Eukaryota, Metazoa, Chordata, Craniata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mesocricetus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                           TISSUE SPECIFICITY: OOCYTES,
DEVELOPMENTAL STAGE: GROWING OOCYTES,
PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES,
SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                              PF00100; zona_pellucida;
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145
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422
386
407
422
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rodentia;
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                   POTENTIAL.
ZONA PELLUCIDA SPERM-BIND:
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MW;
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N-LINKED (GLCNAC...) (
N-LINKED (GLCNAC...) (
L'>P (IN REF. 2).
W'-> S (IN REF. 2).
K'-> R (IN REF. 2).
K'-> R (IN REF. 2).
SB5825A949DCA172 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 151; DE
Pred. No. 2.8e
5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Cricetinae;
                                                                                                 Receptor; Transmembrane;
                                                             SPERM-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
.8e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 426;
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(POTENTIAL).
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                           PIAM; PF00100; zona_pellucida; 1.

PRINTS; PR00023; ZPELLUCIDA.

PROSITE; PS000622; ZP_DOMAIN; FALSE_NEG.

Glycoprotein; Signal; Sulfatation; Sper
                                                                                                                                                                       between the Swiss Institute of Bioinformatic the European Bioinformatics Institute. There use by non-profit institutions as long as modified and this statement is not removed entities requires a license agreement (See ht or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                 ORAZAKI Y., Sugimoto M.;

ORAZAKI Y., Sugimoto M.;

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).

-I- SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLIYMERS CROSS-LINKED BY ZP1.

-I- SUBCELLULAR LOCATION: TYPE I MEMERANE PROTEIN. EXTRACELLULAR
         Extracellular matrix;
                                                                                                                                        EMBL; U05778;
EMBL; D45068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                        InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning and characterization of zona pellucida genes and a variety of mammalian species: the ZPA, ZPB and ZPC gene DNA Seq. 4:361-393(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95143578; PubMed=7841460;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FELCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sacco A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; (Mammalia; Eutheria; Carnivora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP3_FELCA STANDARD; PRT; 424 AA.
P48832;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZP3 OR ZPC.
Felis silvestris catus (Cat).
Felis silvestris catus (Cat).

Arnivora; Fissipedia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
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CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY).
SIMILARITY: CONTAINS 1 ZP DOMAIN.
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                                                                                                                                                                                                                                                                                                                                                                                                 PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES (BY
                                                                                                                                                                                                                                        SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way in the state of the st
                                                                                                 PF00100; zona_;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                                                                                                               AAA74390.1; -.
BAA08096.1; -.
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  Multigene
                       Sulfatation;
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302
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fontenot G.K., Hsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 143; DB
Pred. No. 2.5e
7; Mismatches
family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZP.
PRO-RICH.
PRO-RICH.
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -LINKED (GLCNAC ...) (PC-LINKED (GLCNAC ...) (PC-LINKED (GLCNAC ...) (PC-LINKED (GLCNAC ...) (PC-LINKED (GLCNAC ...)
                    Sperm;
                                                                                                                                                                                              (See http://www.isb-sib.ch/announce/
                Receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
.5e-10;
                                                                                                                                                                                                                              Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      K.T., Yurewicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
         Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 422;
                                                                                                                                                                                                                                 Ьy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
Felis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene families.";
                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
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RESULT 8
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Best Local :
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CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZP3_MOUSE
P10761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1989 (Rel. 11, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP3) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
CHAIN
"Identification of a region of mouse zona pellucida that possesses sperm receptor activity."; Dev. Biol. 154:309-317(1992).
-I- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS F
                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE=88320451;
                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE-88242926; PubMed=3378665; Ringuette M.J., Chamberlin M.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                   STRAIN=CD-1
                                                                                                                                                                                              Nucleic
                                                                                                                                                                                                                                          STRAIN=CD-1; TISSUE=Liver; MEDLINE=89240048; PubMed=2541416;
                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                      Submitted (NOV-1996)
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                                                        MEDLINE=93050795; PubMed=1330788;
                                                                              SEQUENCE OF 49-63; 197-204; 219-233
                                                                                                                                     Wassarman P.M.
                                                                                                                                                 Kinloch R.A.,
                                                                                                                                                                                                                              Kinloch R.A., Wassarman P.
                                                                                                                                                                                                                                                                                                  Dean J
                                                                                                                                                                                                                                                                                                                                              of the mouse zona
                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                    Proc. Natl.
                                                                                                              "Primary structure of
by genomic cloning.";
                                                                                                                                                                                                                    "Nucleotide sequence of the gene encoding
                                                                                                                                                                                                                                                                                                              REVISION TO
                                                                                                                                                                                                                                                                                                                                  Dev. Biol. 127:287-295(1988)
                                                                                                                                                                                                                                                                                                                                            "Molecular analysis of cDNA coding of the mouse zona pellucida:";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             OR ZP-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WFPVEGPADICNCCNKGSCGLQGRSWRLSHLDRPWHKMAS 346
                                                                                                                                                                                             the mouse sperm receptor.";
2 Acids Res. 17:2861-2863(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 55. 22; Conservative
                                                                                                   Acad.
                                                                                                                                                                                                                                                                                                              387.
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384
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405
123
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145
                                                                                                                                                 Roller R
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                                                                                                    Sci. U.S.A. 85:6409-6413(1988).
                                                                                                                                                            PubMed=2842770;
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424
424
404
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424
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                                                                                                                                                                                                                                                                                       to the
                                                                                                                          the mouse sperm receptor polypeptide determined
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Ј.,
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                                                                                                                                                Fimiani C.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
                                                                                                                                                                                                                                                                                      EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 136; DB Pred. No. 1.8e 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZP.

N-LINKED (GLCNAC. . .) (FOTENTIAL).

N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC. . G -> W (IN REF. 2). D -> Y (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZONA PELLUCIDA SPERM-BIND: EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CFC62F35F9AAFC0D CRC64;
                                                                                                                                                                                                                                                                                                                                                        Baur A.W.,
ng for ZP3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PELLUCIDA SPERM-BINDING
                                                                               AND 261-275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
.8e-09;
                                                                                                                                               Wassarman D.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                    zona
                                                                                                                                                                                                                                                                                                                                                        Sobieski D.A., I
a sperm binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
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                                                                                                                                                                                                                    pellucida glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 424;
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 RESPONSIBLE
                                 glycoprotein
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                                                                                                                                                                                                                                                                                                                                                                     Dean
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                                                                                                                                                                                                                                                                                                                                                        protein
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RESULT
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Best Local S
Matches 22
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CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                     01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 3-BETA PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP3-BETA) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                        ZP3_PIG
P42098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00100; zona pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1.
Glycoprotein; Signal; Sulfatation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMINATION.

-i- SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

-i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M20026; AAB18629.1; -. EMBL; X14376; CAA32550.1; -.
Yurewicz
            TISSUE-Ovary;
                        SEQUENCE FROM
                                      NCBI_TaxID=9823;
[1]
                                                            Mammalia; Eutheria;
                                                                      Sus scrofa (Pig).
Eukaryota; Metazoa;
                                                                                             ZP3B OR ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Extracellular matrix
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro;
                                                                                                                                                                                                                                                  309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEVELOPMENTAL STAGE: EXPRESSED DURING THE 2-WEEK GROWTH PH
OCGENESIS, PRIOR TO OVULATION
PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE SPECIFICITY: OOCYTES.
DEVELOPMENTAL STAGE: EXPRESSED
                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S04189;
A30334;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGI:99215; Zp3
                                                                                                                                                                                                                                                               SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                 SWLPVEGDADICDCCSHGNCSNSSSSQFQIHGPRQWSKLVS 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A31232; A31232.
                                                                                                                                                                                                                                                                                                 . Similarity
22; Conser
E.C., Hibler D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the Swiss Institute of Bioinformatics
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409
                                                                                                                                                                                                                                                                                                                                                             424 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S04189.
                                                                                                                                                                                                                                                                                                 Conservative
                       N.A.
                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                         22
424
424
408
424
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308
308
146
273
304
330
                                                             Cetartiodactyla;
                                                                       Chordata;
                                                                                                                                                                                                                                                                                                                                                             46303
                                                                                                                                                                                                                                                                                                            52.1%;
53.7%;
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 Fontenot
                                                                                                                                                                                                                                                                                               Score 126; DB Pred. No. 2.9e 5; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZONA PELLUCIDA SPERM-BINDING PROTEIN
                                                            Craniata; Vertebrata; actyla; Suina; Suidae;
                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                             9089903FBD268365
 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sperm; Receptor; Transmembrane;
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                                                                                                                                                                                                                                                                                                                                                                       D (GLCNAC...)
D (GLCNAC...)
D (GLCNAC...)
D (GLCNAC...)
D (GLCNAC...)
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                                                                                                                                                                                                                                                                                                            DB 1;
.9e-08;
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 Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
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                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                        Length 424;
                                                                                                                                                                                                                                                                                                                                                             CRC64;
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                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                             Euteleostomi; Sus.
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                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                 Gaps
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RESULT 10
ZP3_BD 2P3_B
ID ZP3_B
AC P4883
DT 01-FE
DT 30-MA
DE ZONA
DE GLYCO
GN ZP3 0
OS Bos t
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Best Local
                                                                                                                 01-FEB-1996
01-FEB-1996
30-MAY-2000
                                                                                                                                                                                                     ZP3_BOVIN
P48830;
                                               ZONA PELLUCIDA SPERM-BINDI
GLYCOPROTEIN ZP3B) (SPERM
                                   ZP3 OR ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
CONFLICT
CONFLICT
SEQUENCE
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CARBOHYD
CONFLICT
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SUDMITTED (JAN-1995) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARTY).

-I- SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

-I- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular matrix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00100; zona_pellucida; 1. PRINTS; PR00023; ZPELLUCIDA. PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; L22169; AAA31145.1; -. EMBL; D45065; BAA08093.1; -. GLycoSuiteDB; P42098; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR001507; Pfam; PF00100; zona_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (JUL-1993)
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lycoprotein;
                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                                                                     2
  taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                           WFPVQGPADICQCCNKGDCGTPSHSRR 28
                                                                                                                                                                                                                                                                                                                                                                   WSPVEGPAVICRCCHKGQCGTPSLSRK 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: CONTAINS 1 ZP DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE SPECIFICITY: OOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SWISS-PROT entry is copyright. It is produced through a collaboration sen the Swiss Institute of Bioinformatics and the EMBL outstation surpean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
(Rel. 33, Createu, (Rel. 33, Last sequence update)
(Rel. 33, Last sequence update)
(Rel. 39, Last annotation update)
IDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA FINDING PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΑĄ,
                                                                                                                                                                                                                             STANDARD;
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101
107
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421
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sulfatation; Sperm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED (GLCNAC. ..) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 119; DB 1
Pred. No. 2e-07;
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZONA PELLUCIDA SPERM-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -> A (IN REF. 2).
DC97D760E985213A CRC64;
                                                                                                                                                                                                                       421 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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RESULT 11
ZP3_RABIT
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Best Local
                                                                                                                           01-FEB-1996
01-FEB-1996
01-FEB-1996
                                                                                                                                                                                                      ZP3_RABIT
P48833;
                                                                     ZONA PELLUCIDA SPE
Oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                             ZP3 OR
                                                     (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Cloning and characterization of zona pellucida genes and cDNAs fro a variety of mammalian species: the ZPA, ZPB and ZPC gene families. DNA Seq. 4:361-393(1994).

-i- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMIMATION (BY SIMILARITY).

-i- SUBCNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

-i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycoprotein; Signal;
Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00100; zona_pellucida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a continuous the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U05775; AAA74385.1; -. InterPro; IPR001507; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
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Harris J.D., Hibler D.W., Fontenot G.K., Hsu K.T., Yurewicz E.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos. NCBI_TaxID-9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                         2 WFPVQGPADICQCCNKGDCGTPSHSRRQPH 31
                                                                                                                                                                                                                                                                                                                                                 WSPVEGPTDICRCCSKGRCGISGRSMRLSH 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY)
                             ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity 56.7
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES (BY
                                        (Rel. 33, Createu)
(Rel. 33, Last sequence update)
(Rel. 33, Last annotation update)
(Rel. 37, Last annotation apparent (ZONA PELLUCIDA)
(IDA SPERM-BINDING PROTEIN )
(ZONA PELLUCIDA PROTEIN C)
cuniculus
                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22
421
381
402
421
306
124
146
179
271
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k; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               45.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46545 MW;
(Rabbit)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ψ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 109;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINKED (GLCNAC. . .) (POTENTIAL).
905C4722B7BA11DC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZP.
                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZONA PELLUCIDA SPERM-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNAs from families.";
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ESG3_H
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                AUMAN
DSG3_HUMAN
DSG3_HUMAN
DSG3_HUMAN
DSG3_HUMAN
DSG3_HUMAN
O1-OCT-1993 (Rel. 27, Created)
O1-OCT-1993 (Rel. 27, Last sequence update)
O1-OCT-2000 (Rel. 40, Last annotation update)
O1-OCT-2000 (Rel. 40, Last annotation update)
O1-OCT-2010 3 PRECURSOR (130 KDA PEMPHIGUS VULGARIS ANTIGEN) (PVA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00682; ZP_DOMAIN; 1. Glycoprotein; Signal; Sulfatation; Sper Extracellular matrix; Multigene family.
                       -i- FUNCTION: COMPONENT OF INTERCELLULAR DESMOSOME INVOLVED IN THE INTERACTION OF PLAQUE PROTEINS FILAMENTS MEDIATING CELL-CELL ADHESION.
-i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
-i- TISSUE SPECIFICITY: EPIDERMIS, TONGUE, TONSIL,
                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U05782; AAA74392.1; -.
                                                                                         Amagai M., Klaus-Kovtun V., Stanley J.R.;
"Autoantibodies against a novel epithelial cadherin in vulgaris, a disease of cell adhesion.";
Cell 67:869-877(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA Seq. 4:361-393(1994).
                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=92069753; PubMed=1720352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sacco A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota;
Mammalia; |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cloning and characterization of zona pellucida genes and cDNAs from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=95143578; PubMed=7841460;
Harris J.D., Hibler D.W., Fontenc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  variety of mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                SWFPVQGPADICQCCNKGDC----GTP-----SHSRRQPHVMSQ 35
                                                                                                                                                                                                                                                                                                                                                                                                    SWAPVEGSADICECCGNGDCDLIAGSPMNQNHAARSSLRSRRHVTEE
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Eutheria;
CALCIUM MAY BE BOUND BY THE CADHERIN-LIKE REPEATS
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41
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415
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  species: the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fontenot G.K., Hsu K.T., Yurewicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                           5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   zp.
; 77396CFlBAA3F5CB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZONA PELLUCIDA SPERM-BINDING EXTRACELLULAR (POTENTIAL). POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 100; DB 1;
Pred. No. 3.8e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 415;
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                                                                 S JUNCTIONS.
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                          ESOPHAGUS AND
                                                                                                                      pemphigus
                                                                  INTERMEDIATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           12;
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RESULT
5H6_RAT
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                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 11
                                                                                                                                                     5H6_RAT
P31388;
O1-JUL-1993
O1-NOV-1995
15-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
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REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
Monsma F.J. Jr., Shen Y., Ward R.P., Hamblin "Cloning and expression of a novel serotonin affinity for tricyclic psychotropic drugs.";
                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                           01-JUL-1993 (Rel. 26,
01-NOV-1995 (Rel. 32,
15-DEC-1998 (Rel. 37,
5-HYDROXYTRYPTAMINE 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ram; rru0U28; cadherin; 4.

PROSITE; PS00232; CADHERIN_1;
Cell adhesion; Signal; Transmc
Calcinm-biratin-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                between the Swiss Institute of Bioinformatics and the EMBL outst
the European Bioinformatics Institute. There are no restrictions
use by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                STRAIN=SPRAGUE-DAWLEY;
MEDLINE=93196608; Pubm
                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
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                                                       SEQUENCE FROM N.A
                                                                                                           Rattus norvegicus (Rat).
                                                                                                                        HTR6
                                                                                                                                  (ST-B17).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR002126;
                                                                                                                                                                                                                                                      585 EVCQCDNRGICGTSYPTTSPGTRYGRPH 612
                                                                                                                                                                                                                                                                        10 DICQCCNKGDCGT-----PSHSRRQPH 31
                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
DISEASE: PEMPHIGUS VULGARIS (PV) IS A POTENTIALLY LETHAL SKIN DISEASE IN WHICH EPIDERWAL BLISTERS OCCUR AS THE RESULT OF THE LOSS OF CELL-CELL ADHESION CAUSED BY THE ACTION OF AUTOANTIBODIES AGAINST DSG3.
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641
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                                                                                                                                                                                                STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Repeat.
                                  PubMed=7680751;
                                                                                       Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                          107503
                                                                                                                                                                                                                                                                                                          24.4%;
                                                                                                                                         Last sequence update)
Last annotation update)
RECEPTOR (5-HT-6) (SEROTONIN
                                                                                                                                                                            Created)
                                            TISSUE=Striatum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane; Cytoskeleton;
                                                                                                                                                                                                                                                                                                                                                      MV.
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DESMOGLEIN REPEAT 2.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
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Pred. No.
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CADHERIN 3.
CADHERIN 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
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EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
                                                                                     Craniata; Vertebrata;
Sciurognathi; Muridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
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                                                                                        Muridae;
           receptor with
                      M.W.,
                                                                                                                                                                                                                                                                                                                   Length 999
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                       Sibley
                                                                                                                                             RECEPTOR)
                                                                                                  Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).
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                                                                                        Murinae;
                       D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a collaboration -
                                                                                                                                                                                                                                                                                              6;
                                                                                         Rattus
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EMBL; L03202;
EMBL; S62043;
EMBL; L19656;
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                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000276; -.
InterPro; IPR002232; -.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                 GCRDb; GCR_0719; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SEQUENCE
                                                                          CONFLICT
                                                                                       CONFLICT
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                                                                                                                CARBOHYD
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                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00237; PROSITE; PS50262;
                                                                                                                                                                                                                                                                                                                                                                                 PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ruat M., Traiffort
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                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: THIS IS ONE OF THE SEVERAL DIFFERENT RECEPTORS FOR 5-HYDROXYTRYPTAMINE (SEROTONIN), A BIOGENIC HORNONE THAT FUNCTION AS A NEUROTRANSMITTER, A HORMONE, AND A MITOGEN. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT STIMULATES ADDRALATE CYCLLASE. IT HAS A HIGH AFFINITY FOR TRICYCLIC PSYCHOTROPIC DRUGS. SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN. THE CENTRAL MERVOUS SYSTEM, PREDOMINANTLY IN THE CORPUS STRIATUM BUT ALSO IN VARIOUS SYSTEM, PREDOMINANTLY IN THE CORPUS STRIATUM BUT ALSO IN VARIOUS LIMBIC AND CORTICAL REGIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \tilde{i} Pharmacol. 43:320-327(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hitted (XXX-1993)
FUNCTION: THIS IS
                                                                                                                                                                                                                                                                                                                                             PS00237; G_PROTEIN_RECEP_F1_1; 1. PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                     tamily.
                                                                                                                                                                                                                                                                                                                                   coupled receptor;
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 436
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58
65
86
101
123
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185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; AAA40618.1; -.
; AAB26908.1; -.
; AAA40611.1; -.
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  WW.
                                                                                                                                                                                                                                                                                                                                 Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                                   1 (POTENTIAL CYTOPLASMIC 2 (POTENTIAL
                               L -> V (IN REF. 1).

PCYHCPEHRPALEPPPCGPPLTAVPDQASACSRCCLCLCRQ
PCYHCPEHRPALEPPPCGPPLWST
TOIOTPLOGAPRACSSOPSECCLERPFGTPRHPFGFPLWST
SLSQTLWSLRYGRIHSVPP -> HASTVPRSTGQPCLPLHV
DLSQCQTRPCLQQVLALPLPPNSDSDSASGGTSGLQLTAQ
DLSQCQTRPCLQQVLALPLPPNSDSDSASGGTSGLQLTAQ
                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
                                                                                                                            7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL)
                                                                                                                                         EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                                                                                                                                                  CYTOPLASMIC 4 (POTENTIAL
              ¥
                                                                                                   BY SIMILARITY.
                                                                                                             N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
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                         LLLPGEATRDPPPPTRATTVVNFFVTDSVEPEIRPHPLSSF
  6BC00F6A3CBA5FB4 CRC64
                                                                                                                                                                                                                   (POTENTIAL
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ng as its content
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RESULT
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Matches 15
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01-OCT-2000 (Rel.
01-OCT-2000 (Rel.
                                                                                                              This
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PML1_HUMAN 043490;
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Maw M.A., Corbell D., Koch J., Hellwig A., Wilson-Wheeler Bridges R.J., Kunaramanickavel G., John S., Nancarrow D., Weigmann A., Huttner W.B., Denton M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                      between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              degeneration.";
Hum. Mol. Genet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "A frameshift mutation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Blood 90:5002-5012(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yin A.H., Miraglia S.,
Leary A.G., Olweus J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Fetal liver;
MEDLINE=98052558; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blood 90:5013-5021(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=98052559; PubMed=9389721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A., AND SEQUENCE OF 31-
TISSUE-Fetal liver, AND Retinoblastoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROMININ-LIKE PROTEIN
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                                                                                                                                                                            PTM: GLYCOSYLATED.

PIM: GLYCOSYLATED.

DISEASE: DEFECTS IN PROML1 ARE THE CAUSE OF AN AUTOSOMAL RECESSIVE FORM OF RETINAL DEGENERATION CHARACTERIZED BY NIGHT BLINDNESS AND LOSS OF PERIPHERAL VISION FROM CHILDHOOD WITH PROGRESSION TO PROFOUND VISUAL IMPAIRMENT AND EXTINGUISHED ELECTRORETINGGRAMS BY THE THIRD DECADE. A SINGLE NUCLEOTIDE DELECTRORETINGATED PROTEIN LACKING HALF OF THE SECOND EXTRACELLULAR LOOP, THE FINAL MEMBRANE-SPANNING DOMAIN AND THE CYTOPLASMIC C-TERMINUS.
                                                                                                                                                                                                                                                                                                                                                                                             SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
TISSUE SPECIFICITY: SELECTIVELY EXPRESSED ON CD34 HEMATOPOIET STEM AND PROGENITIOR CELLS IN ADULT AND FETAL BONE MARROW, FET LIVER, CORD BLOOD AND ADULT PERIPHERAL BLOOD. NOT DETECTED ON OTHER BLOOD CELLS. ALSO EXPRESSED IN A NUMBER OF NONLYMPHOID TISSUES INCLUDING RETINA, PANCREAS, PLACENTA, KIDNEY, LIVER,
                                                                                                                                                          SIMILARITY: BELONGS TO THE PROMININ FAMILY.
                                                                                                                                                                                                                                                                                                                                                                              BRAIN AND HEART
            SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EMEUROPEAN BIOINFORMATICS. Institute. There are no restream on non-profit institutions as long as its content by non-profit institutions as long as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLQGAPRACSSQPSFCCLERPPGTPRHPPGPP----LWSTSLS
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15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a novel marker for human hematopoietic stem and
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LOCATION: INTEGRAL MEMBRANE
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1 PRECURSOR (ANTIGEN AC133).
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Kearney J., B
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Pred. No. 9.4;
3; Mismatches
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license agreement (See http://www.isb-sib.ch/announce/

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AF027208; AAB92514.1;

or send an email to license@isb-sib.ch).

Transmembrane;

Glycoprotein;

Antigen; Signal; Polymorphism;

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RESULT 15
PROM_MOUSE
PROM_MOUSE
ID 07-029
DT 01-0CT
ROMIN MUS MU
OC EUKARY
OC MAMMAH
OX. NCBL_T
RN [1]
RP SEQUEN
RC TISSUE
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DOMAIN
TISSUE-Kidney;

MEDILINE-98024147; PubMed-9356465;

Weigmann A., Corbeil D., Hellwig A., Huttner W.B.;

"Prominin, a novel microvilli-specific polytopic membrane the apical surface of epithelial cells, is targeted to pla protrusions of non-epithelial cells.";

Proc. Natl. Acad. Sci. U.S.A. 94:12425-12430(1997).
                                                                                                                                                         PROM.
Mus musculus (Mouse).
Mus musculus (Mouse).
Metazoa; Chordata;
Metazoa; Rodentia;
                                                                                                                                                                                                            PROM_MOUSE STANDARD; PRT; 867 AA. 054990; 035408; 01-0CT-2000 (Rel. 40, Created) 01-0CT-2000 (Rel. 40, Last sequence update) 01-0CT-2000 (Rel. 40, Last annotation update) PROMININ PRECURSOR (ANTIGEN AC133 HOMOLOG).
                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
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:he EMBL/GenBank/DDBJ databases
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CYTOPLASMIC (POTENTIAL).

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                   11 ICOCCNKGDCGTPSHSRRQ
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TISSUE SPECIFICITY: IN THE EMBRYO, EXPRESSED ON THE APICAL SIDE OF NEUROEPITHELIAL CELLS AND OF OTHER EPITHELIA SUCH AS LUNG BUDS, GOT AND URETHER BUDS. IN THE ADULT, EXPRESSED AT THE APICAL SIDE OF THE KIDNEY TUBULES AND OF THE EPENDYMAL LAYER OF THE BRAIN. NOT EXPRESSED IN GUT, LIVER, LUNG, PITUITARY, ADRENAL, HEART OR SPLEEN.
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MCRCCNK--CGGEMHQRQK 149
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                                        Similarity 47.49; Conservative
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AAB86715.1; -.
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S -> N (IN REF. 2).
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P -> L (IN REF. 2).
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N-LINKED (GLCNAC...) (I
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sp_phage:*
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sp_bacteria:*
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                                                                                                                                                                                                                                                                                                                                                                                                                           sp_human:*
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sp_vertebrate:*
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                                                                                                                                                                                                                    Length
           446
99
436
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3 Q9PWF82
3 Q9PWF85
077685
073670
Q9PE89
3 Q9DG37
005478
Q20778
                                                                                                                                                                                   Q12903
L P97708
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) Q9FYV3
 094815
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070421
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                                                                                                                                                                          Q9ERIO
                                                                                                                                                                                                                                                   SUMMARIES
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         Q12903 homo sapien p97708 rattus norv Ogerio microtus br Q91675 xenopus lae p91675 xenopus lae p79762 gallus gall Q9pwf8 gallus gall Q9pwf8 trichosurus O73670 coturnix co Q9pe89 xylella fas Q9dg37 pimephales Q9dg37 pimephales Q5478 streptomyce Q20778 ceanorhabdi Q9pk14 chlamydia m Q9plg6 homo sapien Q9fyv3 saccharum o Q9fyv3 saccharum o Q08463 rattus musculu
                                                                                                                                                                                                                   Description
094815 homo sapien
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RESULT P97708 ID P9 AC P9 DT 01 DT 01 DT 01

N

P97708 PRELIMINARY; PRT; 424 AA. P97708, 055084; 055084; 01-NOV-1998 (TIEMBLIEL 08, Last sequence update) 01-NOV-1998 (TIEMBLIEL 16, Last annotation update)

ช ก	Qy Db	X W O	DR DR	R R R R R R R R R R R R R R R R R R R	888888		RES Q12		
DEGITT 3	Y 1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41      :	Query Match  89.7%; Score 217; DB 4; Length 2 Best Local Similarity 87.8%; Pred. No. 3.6e-22; Matches 36; Conservative 2; Mismatches 3; Indels	Genomics 2 EMBL; U100 InterPro; Pfam; PF00 SEQUENCE	SEQUENCE FROM N.A. SEQUENCE FROM N.A. TISSUE=OVARY; MEDLINE=95309900; PubMed=7789967; MEDLINE=95309900; PubMed=7789967; Kipersztok S., Osawa G.A., Liang L.F., Modi W.S., De Kipersztok S., Osawa G.A., Liang L.F., Modi W.S., De MODOLOgue.":	Homo Sapiens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;  Mammalia; Eutheria; Primates; Catarrhini; Hominidae;  NCBI_TaxID=9806;	101-NOY-1996 (TrEMBLrel. 01, Created) 1 01-NOY-1996 (TrEMBLrel. 01, Last sequence update) 1 01-NAY-2000 (TrEMBLrel. 13, Last annotation update) 2 DOM-783	9 🛭	ALIGNMENTS	20 56 23.1 648 4 09UP38 21 55.5 22.9 344 11 054788 22 55.5 22.9 435 13 09PUJ6 23 55.5 22.9 447 10 09ZRP9 24 55 22.7 591 11 09JF36 25 54.5 22.7 591 11 09JF36 26 54.5 22.5 540 13 09JW5 27 54.5 22.5 559 13 09JW5 28 54.5 22.5 559 13 09JW5 29 54.5 22.5 559 13 09JW5 30 54 22.3 214 09RD56 31 54 22.3 214 09RD56 31 54 22.3 315 6 097601 33 54 22.3 315 6 097601 34 54 22.3 315 6 097601 35 54 22.3 537 4 09HBE2 36 54 22.3 537 4 09HBE2 37 54 22.3 537 4 09HBE2 38 53.5 22.1 22.6 09W67 39 53.5 22.1 351 1 09FYF9 42 53.5 22.1 351 1 09FYF9 43 53.5 22.1 379 10 09FYF9 44 53 21.9 197 6 028581 45 73 21.9 197 6 028581
		h 210; els   0;   Gaps   0;		an J.; ZP3 and a POM121	Euteleostomi; Homo.				Osup38 homo sapien Os4788 mus musculu Ospuj6 carassius a Oszrp9 malus domes Q4588 alcaligenes O9ji49 rattus norv O9jf36 vaccinia vi O92027 cyprinus ca O919m5 xenopus lae Q60473 cavia porce O97602 oryctolagus O97601 oryctolagus O97602 oryctolagus O97601 oryctolagus O97602 oryctol

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RESULT
Q9ERIO
ID Q9
AC Q9
DT 01
DT 01
DT 01
DT 01
DT 2
                                                                                                                                               Дb
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Best Local
                                                                                                                                                                                                  Matches
                             Q9ERIO;
01-MAR-2001
01-MAR-2001
01-MAR-2001
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CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Akatsuka K., Yoshida-Komiya H., Tulsiani D.P., Orgebin-Crist Hiroi M., Araki Y.;
Submitted (NOY-1995) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBL SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE SPECIES-SPECIFICITY OF THE INSMINATION.
-!- SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA, I ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.
-!- SUBGELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLU
               01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation updat
ZONA PELLUCIDA 3 GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: CONTAINS A ZP DOMAIN, WHICH CURRENTLY HAS BEEN FOUND IN ZP2, ZP3, GP2, TGFR-3 AND UROMODULIN.
EMBL; Y10823; CAA71787.1; -.
EMBL; D78482; BAA24456.1; -.
                                                                               Q9ERI0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00241; ZP; 1.
Glycoprotein; Signal; Sulfatation; Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; FALSE_NEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-WISTAR; TISS
MacDuff P.E., Kerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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(ZONA PELLUCIDA GLYCOPROTEIN ZP3) (ZONA PELLUCIDA GLYCOPROTEIN 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001507; -
                                                                                                                                               309
                                                                                                                                                          1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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4
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                                                                                                                                                                                                                                                               388
45
45
329
329
146
273
304
327
330
55
112
412
AA;
                                                                               PRELIMINARY;
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Abstr. Ser. 18:86-86(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                  16
424
387
                                                                                                                                                                                                                                                               45900 MW;
                                                                                                                                                                                                             51.7%;
51.2%;
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V-> A (IN REF. 2).
N-> S (IN REF. 2).
N-> M (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                                                               ZP.
POLY-SER.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
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ZONA PELLUCIDA SPERM-BINDING
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                                                                               PRT;
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                                                                                                                                                                                                           125; DB 11;
No. 2.6e-09;
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D (GLCNAC. . .)
D (GLCNAC. . .)
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(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
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RESULT
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Matches 19
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                                                                                  Q91728 PRELIMINARY;
Q91728;
01-NOV-1996 (TrEMBLrel. (
01-JAN-1998 (TrEMBLrel. (
01-MAR-2001 (TrEMBLrel. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O91675;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hedrick J.L., Yang J.C.;
Submitted (JAN-1996) to t
EMBL; U44952; AAB39079.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases EMBL; AF304487; AAG18455.1; -. SEQUENCE 418 AA; 45662 MW; 12C05062555F468F CRC64;
Eukaryota; Metazoa; (
Amphibia; Batrachia;
                                           Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMART; SM00241; ZP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00100; zona_pellucida; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          XLZPC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Microtus.
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Microtus brandti.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xenopus laevis (African clawed frog)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=137787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                          330
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les 17; Conserv
                                                                                                                                                                                                                                                                                                                                   1 SWFPVQGPADICQCCNKGDC-GTPSHSRR-QPHVM-SQWSR
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                                                                                                                                                                                                                                                                                          SWLPVEGDTDVCDCCTKGDCSSSRYSRPRAHAVAPRNR 346
                                                                                                                                                                                                                                                                                                                                                                                 l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454 AA;
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
454
                      Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49589 MW;
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47.5%;
                                                                                                                                                                                                                                                                                                                                                                                                      41.5%;
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  Anura;
                                                                                       01,
05,
16,
Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                 9;
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                                                                                       Last sequence update)
Last annotation updat
                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                   Score 100.5; DB 1
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ZONA PELLUCIDA C GLYCOPROTEIN;

A8DB9A5B978E5197 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 115; DB 1
Pred. No. 6e-08;
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of zona
                      Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Arvicolinae;
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pellucida
                         Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                             DB 13;
Pipoidea;
                                                                                       update)
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cDNA f
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       Q9PWF8;
Q9PWF8;
01-MAY-2000
01-MAY-2000
01-MAR<sub>$</sub>2001
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EMBL; D89097; BAA13760.2; -.
InterPro; IPR001179; -.
InterPro; IPR001179; -.
InterPro; IPR001507; -.
PFAm; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA,
PROSITE: PS00043; FKBP_PPIASE_1; UNKNOWN_1.
SEQUENCE 446 AA; 47700 MW; DC5415232C22F03C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-OVARIES FROM HCG-TREATED FEMALES;
MEDLINE-98013448; PubMed-9352194;
Kubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu Rubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu Rubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu Rubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu Rubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu Rubo H., Suzu
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MEDLINE=99203469; PubMed=10103002;
Takeuchi Y., Nishimura K., Aoki N., Adachi T., Sato C.,
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pfam; pF00100; zona_pellucida;
SMART; SM00241; ZP; 1.
SEQUENCE 460 AA; 50084 MW;
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NCBI_TaxID=8355;
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Pred. No. 6.3e-06;
9; Mismatches 10
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Pred. No. 1.1e-05;
7; Mismatches 12;
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Best Local Similarity
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"Gallus gallus zona pellucida C protein gene.";

Submitted (AUG-1999) to the EMBL/GenBank/DDBJ da

EMBL; AB031033; BAA83418.1; -.

Interpro; IPR00179; -.

Interpro; IPR001507; -.

Pfam; PF00100; zona_pellucida; 1.

PRINTS; PR00023; ZDELLUCIDA.

PROSITE; PS00453; FKBP_PPIASE_1; UNKNOWN_1.

SMART; SM00241; ZB; 1.

SMART; SM00241; ZB; 1.
073670
073670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     McCartney C.A., Mate K.E.;
"Cloning and characterization of a zona pell marsupial, the brushtail possum Trichosurus Zygote 0:0-0(1998).

EMBL; AF079524; AAC28736.1; ...
InterPro; IPR001179; ...
InterPro; IPR001507; ...
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Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                 SMART; SM00241; ZP;
SEQUENCE 422 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00453; FKBP_PPIASE_1; UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trichosurus vulpecula (Brush-tailed possum).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Metatheria; Diprotodontia; Phalangeridae;
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Pred. No. 3.36
4; Mismatches
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Last annotation updat
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Pred. No. 1.1e-05;
7; Mismatches 12
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RP SEQUEN
RA SIMPSO
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RX MEDLIND=20365717; PubMed=10910347;
RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Alvarenga R., Alves L.M.C., Baia G.S., Baptista C.S.,
RA Colauto N.B., Colombo C., Casta F.F., Costa M.C.R., Costa Neto C.M.,
RA Coutinho L.L., Cristofani M., Dias Neto E., Docena C., El Dorry H.,
RA Coutinho L.L., Cristofani M., Dias Neto E., Docena C., El Dorry H.,
RA Facincani A.P., Ferreira A.J.S., Ferreira V.C.A., Ferro J.A.,
RA Facincani A.P., Ferreira A.J.S., Ferreira V.C.A., Ferro J.A.,
RA Fraga J.S., Franco M.C., Frohme M., Furlan L.R.,
RA Garnier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Gruber A.,
RA Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,
RA Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,
RA Lemos E.G.M., Jenos M.V.F., Lopes S.A., Lopes C.R., Machado J.A.,
RA Machado M.A., Madeira A.M.B.N., Madeira H.M.F., Marino C.L.,
RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,
RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,
RA Menck C.F.M., Miracca E.C., Miyaki C.Y., Monteiro-Vitorello C.B.,
RA Menck C.F.M., Miracca E.C., Miyaki C.Y., Monteiro-Vitorello C.B.,
RA Menck C.F.M., Mortins E.A.L., Martins E.M.F., Oliveira M.A.,
RA Menck C.F.M., Nobrega F.G., Nunes L.R., Oliveira M.A.,
RA Menck C.F.M., Pereira G.A.G., Pereira H.A. Jr., Persis A.,
Paris de Oliveira M.C., de Oliveira R.C., Palmieri D., Sawasaki H.E.,
RA Menck C.R., da Silva A.M., da Silva F.R., Silva W.A., Jr.,
RA de Souza A.P., Terenzi M.F., Truffi D., Tsai S.M., Tsuhako M.H.,
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Submitted (MAR-1998) to the EMBL/GenBank/DDBJ
EMBL; AB012606, BAA25637.1; -.
InterPro; IPR001179; -.
InterPro; IPR001179; -.
InterPro; IPR001507; -.
Pfam; PP00100; zona_pellucida; 1.
PRINTS; PR001023; ZPELLUCIDA.
PROSITE; PS00023; FKBP_PDIASE_1; UNKNOWN_1.
SMART; SM00241; ZP; 1.
SMART; SM00241; ZP; 1.
SMART; SM00241; ZP; 1.
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Coturnix coturnix japonica (Japanese quail).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Neoqnathae; Galliformes; Phasianidae; Phasianinae;
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01-AUG-1998 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
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Servin-Gonzalez L.; "Cloning, character of an extracellular
                                                                                     Bacteria; Firmicutes; Actinobacteria; Actinobacterid Actinomycetales; Streptomycineae; Streptomycetaceae; NCBI_TaxID=1931;
                                                                                                                                                                                                                                                                                                                                                                               Morris C.A., Thomas-Jones R.E., Cryer J., Wood "Identification of the ZP3 CDNA sequence from exposed to diethylstilbestrol."; Submitted (OCT-1999) to the EMBL/GenBank/DDBJ EMBL; AF192407; AAG28398.1; -.
                                                                                                                                                       01-JUL-1997 (TrEMBLrel.
01-JUL-1997 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
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Eukaryota; Metazoa; Chordata; Craniata;
Actinopteryqii; Neopteryqii; Teleostei;
Cypriniformes; Cyprinidae; Leuciscinae;
                               MEDLINE=93138418; PubMed=8422993; Perez C., Juarez K., Garcia-Castells E.,
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                                                                SEQUENCE
                                                                                                                      Streptomyces sp
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45.8%;
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ACCOMUNICATION OF THE PROPERTY OF THE PROPERTY
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson A
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen J
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interpro; IPR000792; -.
Pfam; PF00196; GerE; 1.
SMART; SM00421; HTH_LUXR; 1.
DNA-binding; Transcription regulation.
SEQUENCE 934 AA; 95200 MW; 721770AAEE7E8FA2
                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation updats
SIMILAR TO TRIPLE HELICAL REGION OF COLLAGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02077
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Submitted (APR-1997) to
-:- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                 STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-BRISTOL N2; MEDLINE-94150718; PubMed=7906398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rhabditidae; Peloderinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 F54D8.1
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                                                                          Submitted (AUG-1994) to t.
EMBL; U12966; AAA20613.1;
InterPro; IPR000087; -.
InterPro; IPR002486; -.
                                                                                                                                                                                                                                                                                                                                                                                                           Nature 368:32-38(1994).
[2]
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                                                                                                                                                                                                            STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                               Submitted (NOV-1994)
     SEQUENCE
                                                                                                                                                                                         Waterston R.;
                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               123:109-114(1993).
PF01391; Collagen; 2.
PF01484; Col_cuticle_N; 1.
NCE 1120 AA; 119368 MW;
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5; Mismatches
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Pred. No. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence
  17764D8C4B88BCCD CRC64;
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RESULT 15

Q9P1G6

ID Q9P1G6

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Best Local S
Matches 11
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
TISSUE-LIVER;
Zhang C., Yu Y., Zhang S., Wei H., Zhou G., Oùyang S., Luc Liu M., He F.;
Liu M., He F.;
"Functional prediction of the coding sequences of 121 new deduced by analysis of cDNA clones from human fetal liver. Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                          Jl-v..
PRO1787.
Homo sapiens (Human).
Homo sapiens (Human).
Horia; Metazoa; Chordata;
horia; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gwinn M., Nelson W., DeBoy R., Kolonay J., Eisen J., Fraser C.M.; Eisen J., Fraser C.M.; "Genome sequences of Chlamydia trachomatis pneumoniae AR39."; Nucleic Acids Res. 28:1397-1406(2000). EEMBL; AE002316; AAF39327.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Interpro; IPR002302; -..

Pfam; PF00133; tRNA-SYNTHLEU.

PRINTS; PR00985; TRNA-SYNTHLEU.

PROSITE; PS00178; AA_TRNA_LIGASE_I; UNKNOWN_1.

SEQUENCE 819 AA; 93014 MW; 024D7E1BD2E900B4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg J.F., White O., Hickey E.K., Peterson J., Utterback T., Berry K., Bass Linher K., Weidman J., Khouri H., Craven B., Bowman C., Dodson R. Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Salzberg
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01-OCT-2000
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01-OCT-2000
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InterPro; IPR002300;
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                                                                                                                                            SEQUENCE FROM N.A.
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
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15,
16,
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Pred. No. 12;
1; Mismatches
                                                                                                                                                                                                                                                                                                         Created)
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Pred. No. 1
                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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S.L.,
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rearch completed: July 12, 2001, 08:26:53
Tob time: 163 sec
                                                                                                                                                                    Query Match 23.1%; Score 56; DB 4; Length 122; Best Local Similarity 36.6%; Pred. No. 2.4; Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps
                                                                                                                                                                                                                                                                    EMBL; AF116668; AAF71088.1; -.
SEQUENCE 122 AA; 13695 MW; B428ED1274CE81CD CRC64;
                                                                                           2;
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